

1947



48th Annual Report

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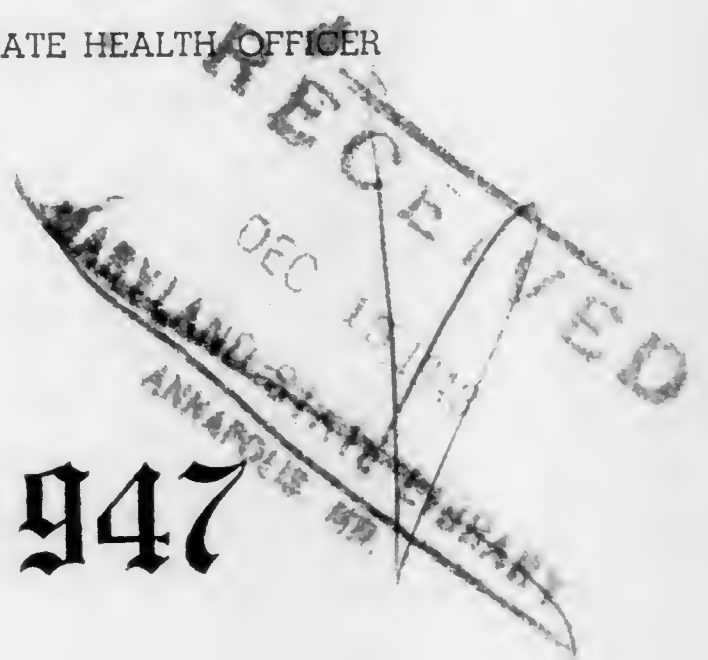
STATE BOARD OF HEALTH

State of Florida

WILSON T. SOWDER, M.D.

FLORIDA STATE HEALTH OFFICER

1947



FLORIDA STATE BOARD OF HEALTH

Jacksonville 1, Florida

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48th Annual Report

STATE BOARD OF HEALTH
State of Florida

WILSON T. SOWDER, M.D.
FLORIDA STATE HEALTH OFFICER

FLORIDA STATE BOARD OF HEALTH
Jacksonville 1, Florida

His Excellency, MILLARD F. CALDWELL
Governor of Florida
Tallahassee, Florida

SIR:

I beg to hand you herewith a report of the Florida
State Board of Health for the period January 1, 1947,
to December 31, 1947, inclusive.

Respectfully submitted,

HERBERT L. BRYANS, M.D.
President

August 30, 1948
Pensacola, Florida

The Honorable HERBERT L. BRYANS, M.D., President
Florida State Board of Health
Pensacola, Florida

DEAR DR. BRYANS:

I herewith submit the forty-eighth annual report
of the Florida State Board of Health for the year
ending December 31, 1947.

Sincerely yours,

WILSON T. SOWDER, M.D.
State Health Officer

August 30, 1948
Jacksonville, Florida

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Indian River-Okeechobee-St. Lucie	George A. Dame, M.D.*

(*) Acting Director until a Health Officer is appointed.

FOREWORD

The year 1947 was a significant one in the annals of the State Board of Health. The legislature saw fit to double our appropriation, the increased funds being allocated to the support of county health units, a new cancer control program, a general mosquito control program, expansion of laboratory services, including the establishment of a branch laboratory in Orlando, and expansion of engineering activities. New duties were also placed upon us. A law was passed requiring the inspection, regulation and licensing of hospitals which receive federal aid through the Federal Hospital Construction Act. We were also given the responsibility for regulating and inspecting the work of pest control operators in the State. Federal funds were also made available for the first time for a mental health program and the Governor designated the State Board of Health as the state agency to carry on this program. The legislature also increased the membership of the State Board of Health from three members to five which was the first change made in the membership of the Board since its establishment in 1889.

We were fortunate during the year in that there were no exceptional outbreaks of communicable diseases but additional measures were taken to deal with problems of long standing in this field. In February, due to a lack of funds, our Rapid Treatment Center for venereal diseases which had been operated aboard the former Army Transport, Ernest Hinds, in Jacksonville, was closed. In July the center was reopened and in better quarters at the former Naval Air Station Hospital at Melbourne. In order to more effectively deal with the cancer problem a Division of Cancer Control was set up in the Bureau of Preventable Diseases and Dr. J. B. Hall was selected as its first director. Animal rabies became an increasing problem during the year, more cases being reported than ever before in Florida's history. Because of this problem and other related problems plans were made to employ a public health veterinarian in the Bureau of Preventable Diseases. The duties of a public health veterinarian will be concerned not only with the control of rabies but to assist in the control of all diseases of animals which are transmissible to man. Because of expanded activities in the field of preventable diseases the work of our laboratories increased substantially, the number of tests performed being 18.7% higher than during the preceding year. A laboratory was opened at the Rapid Treatment Center in Melbourne in order to serve that facility and plans are being made for the establishment of a branch laboratory in Orlando. A Division of Industrial Hygiene was organized in the Bureau of Preventable Diseases and Dr. J. M. McDonald was appointed as its director. Investigations were made in various industrial plants of conditions that might be dangerous

to the health of workers and appropriate recommendations made to the Industrial Commission and to the industrial plant concerned. We have continued a project for the investigation of the incidence and epidemiology of typhus fever in cooperation with the Rockefeller Foundation. This project is under the direction of Dr. E. R. Rickard with headquarters in Tampa and we believe that much useful data has been gathered which will enable us to better cope with this very serious problem within the State.

Our tuberculosis control program was greatly expanded and x-ray surveys throughout the state were made in greater numbers and with better results than ever before. In a six week's period 100,000 persons were x-rayed in Dade County and this without calling for additional federal assistance. By using to the greatest advantage state and local resources and by cooperating closely with the local Tuberculosis Association, this survey was made at a remarkably low cost per x-ray. Steps were taken during the year to coordinate the efforts of the State Board of Health, The Florida Tuberculosis Board and the Tuberculosis and Health Association by the appointment of a coordinator whose salary and travel was shared by all three agencies.

During the year fifteen additional counties, making a total of sixty in all, established a county health department. Florida now leads the nation in the percentage of its people which are served by local health departments which are staffed by a competent corps of physicians, nurses, sanitary officers and other technical personnel. In spite of a nationwide shortage of such personnel we have been able to maintain an almost unique record of keeping most of our positions filled.

With the assistance of the Commonwealth Fund, a Field Technical Staff was organized January 1, 1947. It consists of a physician, two sanitation consultants, two nurse consultants, and two record consultants. The primary purpose of the staff is the continual training of health workers in the counties, by demonstration, observation, and teaching new techniques.

There are still some vacancies in public health nursing positions but these are few in number and we can be proud of our record here as compared to experiences in other states and in comparison to other agencies within the state which employ nurses. The Division of Public Health Nursing has devoted much of its time to solving this problem.

In order to supply the demand for trained personnel the operation of the training center in Alachua County in cooperation with the Commonwealth Fund and the Alachua County Health Department was continued. Arrangements were continued with the University of Florida and the Florida State University for post-graduate training of bacteriologists. Most of the trainees will be employed permanently in the laboratories of the State Board of Health.

The death rates for infants and the maternal mortality rates were the lowest on record in the state. Continued emphasis was placed on services to mothers and infants in migrant labor areas, to premature infants, and to school children. During the late winter and spring thirty-six young graduate physicians were employed temporarily to assist in the school program carried on by our county health departments. The mental health program was started by the employment of a psychiatrist and a plan was developed by which regional mental health clinics would be established in the principle cities of the state. Special emphasis to be given to the problems of children and youth. Our staff of nutritionists under the direction of a physician trained in that field continued its investigations in the field of malnutrition and anemia, and its work also included education, demonstration, and consultation services.

It is also hoped that during the next fiscal year to be able to employ a competent director for the Division of Dental Health and expand this program considerably. There is an urgent need for a better public health dental program in the State.

In the field of environmental sanitation the Bureau of Sanitary Engineering reviewed and approved plans for the construction of water and sewage plant facilities, the cost of which amounted to about \$18,000,000. In addition considerable work was done in connection with stream pollution investigations and appropriate recommendations made to municipalities, sanitation districts and to private industries.

The Bureau of Malaria Control was consolidated with the Bureau of Sanitary Engineering and set up as a Division of Entomology. Its work was expanded to include the control of pest mosquitoes as well as those which are known to transmit diseases. In addition this division was given the responsibility for the regulation of pest control operators and for the rodent control program.

In cooperation with the State Hotel Commission and the Florida Restaurant Association a mobile food handlers' school was organized. In the beginning most of the expense of this school was borne by the State Board of Health and courses were offered to local restaurant operators and food handlers in DeLand, Sanford and Perry and a workshop for operators was conducted at the Florida State University in Tallahassee.

During the year a new system for the collection of vital statistics data was inaugurated in the interest of greater economy and efficiency. Registration districts were consolidated in forty-nine of the sixty-seven counties and the county health officer was given the responsibility for the collection of this data within his county.

Improvements in the business administration of the affairs of the State Board of Health were continued and various significant

changes were made in bookkeeping methods, purchasing procedures, property accounting, and in other phases in this field. Better procedures were initiated to control the expenditure of funds for personal services, equipment and supplies, and to coordinate such expenditures with existing budgets and with available funds. The complexity of this problem is indicated by the fact that we had the responsibility for the supervision of expenditure of eighty-eight different funds appropriated by different bodies or appropriated for different purposes.

The Bureau of Narcotics continued its excellent work under the direction of Mr. Marshall H. Doss in the enforcement of the laws dealing with narcotics, the medical practice act, the pharmacy laws and the registration and licensing of drug stores.

Through the Division of Health Information the people of the state were kept in constant touch with current public health problems. Through the medium of our official publication "Health Notes," which has been published since 1892, we have made available to the people of the state the latest ideas on health. Our excellent library has also been the means of keeping not only our own employees but physicians and others interested in public health and the healing arts abreast of current scientific knowledge. We have also used the press, radio, posters and moving pictures as a means of informing the public of the best means of meeting our health problems from day to day.

In February we were able to persuade the U. S. Public Health Service to locate one of two Diabetes Demonstration projects provided for the entire country, in the City of Jacksonville. This Project has been carried on under the direction of Dr. Malcolm J. Ford in cooperation with the City and County Health Departments and the State Board of Health. It has consisted in the finding of diabetes cases by urine and blood tests; and classes have been offered to all sufferers from the disease by a nutritionist, nurse and physician in the dietetic management of their condition. Private physicians have welcomed this service and those who are acquainted with the program would like to see it activated on a statewide basis.

WILSON T. SOWDER, M.D.—State Health Officer.

Edited by
EVERETT H. WILLIAMS, JR.

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BUREAU OF PREVENTABLE DISEASES

R. F. SONDAG, M.D., Director

During the year 1947 there were no notable outbreaks of communicable diseases. The incidence of most reportable diseases remained at a normal seasonal expectancy.

This Bureau was chiefly concerned with the development of a well rounded cancer control program and a report of activities on cancer control is included in this report.

There was a slight set-back in venereal disease activities due to the lack of funds to maintain the Rapid Treatment Center for the remainder of the fiscal year 1947. It was necessary to close the Ernest Hinds Rapid Treatment Center in February. Due to the administrative impossibilities on the Ernest Hinds it was deemed necessary to find a land base facility. The Naval Air Station Hospital at Melbourne was finally secured for the Rapid Treatment Center and the program began operating again in July. The lack of funds not only affected the in-care treatment of venereal disease patients but also drastically curtailed the purchase of drugs for out-patient treatment. The Venereal Disease Control activities also follow in this report.

On November 1, our epidemiologist resigned to accept a position as County Health Officer of Polk County. The epidemiological activities since his resignation have been carried on by the Director of this Bureau.

The Cancer Control Division was created by the Board on September 20, and Doctor James B. Hall, formerly Health Officer of Highlands-Glades County Health Department was selected as Director of the Cancer Control Division.

During December, plans were made to add a Public Health Veterinarian to the staff of the Bureau of Preventable Diseases and Dr. James E. Scatterday, formerly with the Alachua County Health Department, was selected for this position. During the ensuing year efforts will be made to expand the control of diseases that have their origin in animals and are transmitted to man.

The reports of the various divisions and field activities under the direction of the Bureau of Preventable Diseases follow:

EPIDEMIOLOGY

E. G. RILEY, M.D.

Following the 577 cases of poliomyelitis that occurred during 1946, as expected, 1947 showed marked decrease, with only 111 cases reported. Several isolated situations called for attention and the National Foundation for Infantile Paralysis was asked to investigate a problem arising from this disease in West Palm Beach. There was still some apprehension prevalent, especially by out of state visitors, and many letters were received asking about the status of poliomyelitis in Florida.

Plans were conducted in cooperation with the state representatives of the National Foundation for Infantile Paralysis to place upon a more permanent basis arrangements for treatment of cases of this disease. It is hoped this planning will be continued in the future.

Cancer has again shown an increase in the number of cases reported over the last year. This is no doubt due to two reasons, an increased interest in this disease created by the newly set up cancer control program and the general improvement of reporting cases of notifiable diseases.

An arrangement has been worked out whereby the Laboratory includes a completely filled out report card which is sent to physicians with every positive laboratory report. This method relieves the physician of filling out these cards and it is felt that reporting has been improved by this method.

Diphtheria has shown a decrease this year over last and is again approaching the average number of cases which has been constantly declining since this disease was first made reportable in 1918.

Malaria has also shown fewer cases to be reported and most of these were found to be in young men of military age.

Tuberculosis has a two-fold increase in the number of cases reported due to the very excellent case finding program of the Bureau of Tuberculosis.

On the whole, those diseases against which we have specific means of protection have shown a uniform decrease. Just how much of this has been brought about by increased immunization, which has been rather great during the past several years, or to a general recession, is difficult to state.

Typhus fever has continued to show a downward trend which was followed by the peak year of 1944 and it is felt that this represents a natural recession in the disease. The Typhus Fever Studies conducted by Dr. E. R. Rickard are incorporated in this

report. The typhus fever survey in which the Epidemiologist participated last year has now developed into a localized program and the investigation of current cases has been done by lay investigators who have reported many unreported cases but not in the proportion of two and a half times as occurred in the general survey. The investigators have spent much time in the local health units, hospitals and with private physicians informing them of typhus fever and asking their cooperation in the reporting of the disease. It is felt that if the reporting of diseases, in general, is ever to reach any degree of completeness such educational methods must be employed.

Particular interest this year was had in Rocky Mountain Spotted Fever. This disease presents many of the features of typhus fever and it is hoped to demonstrate all the conditions in order to stimulate physicians to endeavor to differentiate between the two.

Two proved cases of Spotted Fever were found, one of which was interesting in view of the fact that it was first thought to be post vaccinal encephalitis and was diagnosed as Rocky Mountain Spotted Fever only after a complement fixation test was performed.

A public health program for leprosy was planned during the year following a visit by the Epidemiologist to Carville. It was learned at that time that there have been 85 cases of this disease in persons from Florida since 1922. Most of these cases have come from Key West, Miami, and Tampa, with Key West contributing the largest number. A two fold program is contemplated; first, to institute an intensive educational program, and, second, it was hoped to institute a case finding program in order that those persons affected with leprosy could be placed under proper treatment and public health control. Great public interest has been manifest in this program.

An attempt was made during the year to follow more closely various out-breaks of enteric infections and detailed information was had on six, four of which were investigated by the Epidemiologist and one by Dr. Sondag. One of these involved about 300 people who were infected with gastroenteritis due to *Salmonella typhimurium*. Another occurred in a day nursery and involved twelve children. The only organism which may have been the source of the difficulty isolated was a paracolon organism. This instance was interesting in that the mother of one of the children in the home was found to be a dysentery carrier and her child later developed this disease even though the woman had been thoroughly instructed in how to guard against transmitting the disease.

The third out-break investigated was that in an educational institution in which about 200 cases of acute gastroenteritis occurred and three species of *Salmonella* were isolated from the stools of the individuals involved although the out-break was characterized by a very uniform onset and course.

One out-break was due to *Salmonella* from eating infected raw oysters and although the organism was isolated from the oysters it could never be identified in the patients. Several hundred persons were affected in this out-break.

The other out-break was probably due to a *Staphylococcus* type of poisoning and occurred at a high school banquet, thirty persons being involved.

Three of four out-breaks of enteric diseases were rumored but it was impossible to obtain specific information concerning them.

There was also a small out-break of typhoid due to infected oysters. The out-break was quickly brought under control by stopping the sale of oysters which originated from condemned areas.

The most important disease problem during the year was rabies. There were more cases reported during 1947 than ever before in Florida's history. (See Tables I and II.)

This is due to two factors, first, more rabies, second, better reporting. Fortunately, no human disease occurred, although 1434 people had the Pasteur treatment following animal bites. The State Board of Health issued 1434 anti-rabies treatments, consisting of the 14 dose series, at a cost of \$4.25 per treatment. The total cost to the Florida State Board of Health was \$6,094.50. This figure, of course, does not include the vaccine bought by practicing physicians. Thus it can readily be seen that the Pasteur treatment is not only painful, but costly.

Quarantine was placed into effect in Hillsborough, St. Johns and Dade Counties. These quarantines were not too effective because enforcement agencies are handicapped by public sentiment, ignorance and lack of control legislation to impose and thoroughly carry out uniform regulations. The Florida State Veterinarian's Association was instrumental in introducing a rabies control bill into the State Legislature but the bill failed to pass. Rabies is a disease which can be effectively controlled and completely eradicated. Effective legislation, however, is necessary in order that steps can be taken to eradicate this most dangerous disease. The Public Health Veterinarian now with the Bureau of Preventable Diseases will devote the major portion of his time to the control of this dangerous condition.

Other diseases showed minor variations from previous years

in the number of cases reported and the diseases reported conformed to normal seasonal expectancy.

TABLE I
TOTAL NUMBER OF ANIMAL RABIES REPORTED BY COUNTY—1947—
FLORIDA

COUNTY	TOTAL	DOGS	CATS	CATTLE	HORSES	SHEEP	GOATS	SWINE	MISCELLANEOUS	SPECIES UNKNOWN
TOTAL	438	341	15	5	2	0	2	0	20	53
Alachua	1	1								
Baker	2	1	1							
Bay	1								1	
Broward	1	1								
Calhoun	1	1								
Clay	1	1								
Dade	123	76	4		1		2		1	39
Duval	26	26								
Franklin	4	4								1
Gadsden	5	4								1
Hillsborough	136	133		2						1
Holmes	8	5	2							
Jackson	3	3							17	
Jefferson	17									
Lake	2	2								
Leon	4	4								
Madison	3	3								
Orange	11	9		1	1					
Palm Beach	1	1								
Pasco	1	1								
Pinellas	4	3							1	
Polk	6	4	1							1
St. Johns	12	12								
Santa Rosa	5	5								
Volusia	60	41	7	2						10

TABLE II
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1947—AND STATE TOTALS FOR 1945 AND 1946

COUNTIES	STATE POPULATION (1947 ESTIMATE)	CANCER	CHANCROID	CHICKENPOX	CONJUNCTIVITIS	DIARRHEA	DIPHTHERIA	DYSENTERY-AMEB.	DYSENTERY-BAC.	DYSENTERY-OTH.	ENCEPHALITIS-EP.	ENCEPHALITIS-OTH.	ERYSIPELAS	GERMAN MEASLES	GONORRHEA	GRANULOMA ING.	HOOKWORM	INFLUENZA	JAUNDICE	LYMPH. VEN.	MALARIA-IN U.S.	MALARIA-OTHER	MEASLES	MENINGITIS-EP.
TOTAL FOR 1945	11,066	450	722	1,701	19	44	235	89	31	9	1	2	42	172	18,088	244	4,583	120	23	197	152	518	671	153
TOTAL FOR 1946	11,041	1,041	818	1,839	88	51	361	79	27	18	14	4	59	153	18,548	257	3,805	227	32	176	459	44	3,491	77
ALACHUA	1,025	1,025	745	1,969	84	67	283	59	5	11	4	1	31	64	20,160	271	4,605	1,083	24	216	121	14	1,315	49
BAKER	6,326	9	10	69	6	3	2	2	1	1	1	1	1	1	47	12	23	9	4	3	7	3	9	2
BAY	53,200	5	17	18	1	3	1	2	1	1	1	1	1	1	107	3	85	13	3	3	3	7	7	1
BRADFORD	11,600	1	3	11	1	1	1	1	1	1	1	1	1	1	12	1	1	1	1	3	3	3	3	1
BREVARD	20,750	21	15	39	5	1	4	1	1	1	1	1	1	6	267	7	440	4	3	3	1	1	12	1
BROWARD	56,100	8,230	4,470	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	3	1	1	3	1
CALHOUN	8,230	4,470	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
CHARLOTTE	4,470	5,427	3	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
CITRUS	11,600	3	3	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
CLAY	11,600	3	3	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
COLLIER	4,957	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
COLUMBIA	17,250	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	12	1
DADE	336,300	530	180	553	3	54	1	6	1	1	1	1	1	5	53	2	53	55	7	38	24	5	278	1
DE SOTO	6,854	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1
DIXIE	4,926	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1
DUVAL	302,200	1	171	355	11	3	3	17	1	1	1	1	1	1	1	1	1	1	2	40	1	2	28	6
ESCAMBIA	118,900	4	59	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	85	1
FLAGLER	2,652	3	3	5	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FRANKLIN	8,900	2	2	10	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GADSDEN	31,041	2	8	12	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GILCHRIST	3,466	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GLADES	2,281	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GULF	7,040	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HAMILTON	8,731	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HARDY	8,885	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HERNAND	5,066	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HERNANDO	5,700	2	5	5	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HIGHLANDS	19,300	272	38	195	11	1	49	1	1	1	1	1	1	7	2,774	41	71	211	13	56	5	7	88	15
HILLSBOROUGH	220,100	14,627	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HOLMES	9,130	2	2	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
INDIAN RIVER	34,550	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
JACKSON	34,550	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE II
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1947 — AND STATE TOTALS FOR 1945 AND 1946 (Continued)

COUNTIES	STATE POPULATION (1947 ESTIMATE)	CANCER	CHANCROID	CHICKENPOX	CONJUNCTIVITIS	DIARRHEA	DIPHTHERIA	DYSENTERY-AMEB.	DYSENTERY-BAC.	DYSENTERY-OTH.	ENCEPHALITIS-EP.	ENCEPHALITIS-OTH.	ERYSIPELAS	GERMAN MEASLES	GONORRHEA	GRANULOMA ING.	HOOKWORM	INFLUENZA	JAUNDICE	LYMPH. VEN.	MALARIA-IN U.S.	MALARIA-OTHER	MEASLES	MENINGITIS-EP.
JEFFERSON	11,066	4	14	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LAFAYETTE	3,995	2	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LAKE	28,300	4	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LEE	26,300	2	6	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LEON	37,100	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LEVY	9,902	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LIBERTY	3,193	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MADISON	15,537	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MANATEE	27,100	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MARION	36,900	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MARTIN	6,094	3	5	40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MONROE	21,200	3	5	40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NASSAU	10,900	7	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
OKALOOSA	17,650	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
OKECHOBEE	2,919	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ORANGE	94,200	4	22	272	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
OSCEOLA	10,800	4	65	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PALM BEACH	126,700	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PASCO	13,729	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PINELLAS	147,300	85	20	11	37	3	30	1	2	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1
POLK	123,800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PUTNAM	17,837	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ST. JOHNS	22,300	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ST. LUCIE	13,400	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SANTA ROSA	17,400	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SARASOTA	20,600	10	4	32	1	1	19	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SEMINOLE	25,600	4	4	7	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SUMTER	10,417	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SUWANEE	17,800	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TAYLOR	10,738	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
UNION	6,051	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VOLUSIA	61,600	28	9	40	2	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
WAKULLA	5,059	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
WALTON	13,871	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
WASHINGTON	11,889	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE II
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1947 — AND STATE TOTALS FOR 1945 AND 1946 (Continued)

COUNTIES	MENINGITIS-OTHER	MUMPS	OPHTHAL, NEO.	PARASITIC, OTH.	PARATYPHOID	PPELLAGRA	PNEUMONIA, ALL FORMS	POLIOMYELITIS	RABIES, ANIMAL	RABIES, HUMAN	SALMONELLA	SCARLET FEVER	SMALLPOX	STREP. INF.	SYPHILIS	TETANUS	TUBERCULOSIS, ALL FORMS	TULAREMIA	TYPHOID	TYPHUS	UNDULANT FEVER	VINCENT'S ANG.	WHOOPING COUGH	LEPROSY	PUERPERAL INF.	ROCKY MT. SPT. FEVER
TOTAL FOR 1945	13	1,318	23	445	29	5	1,003	138	9	1	85	329		43	16,546	20	1,351	9	136	370	27	103	449	1		
TOTAL FOR 1946	27	1,592	20	486	20	13	772	577	59		122	270		143	16,067	40	2,110	7	66	397	81	123	1,029	8		
TOTAL FOR 1947	20	914	30	522	10	17	663	111	438		9	320		121	16,663	27	4,395	8	66	340	67	151	1,861	2		
ALACHUA	1	24	3	3	3	3	10	1	1		1	1		1	34	1	14	1	4	3	3	1	12			
BAK		2	2	14			2	1	1		2	3			284		14		3	3	4	1	12			
BAY		1					2	1	1		1	1			54		18		1	1	1	1	7			
BRADFORD		1					4	6	1		3	1		5	178		23		1	1	1	1	14			
BREVARD		1					2	1	1		2	10		1	518		61		2	3	2	1	46			
BROWARD		30	1				2				1				41		12		1	1						
CALHOUN											1				33		10		1	1						
CHARLOTTE							2		1		1	2			73		9		4	4		2	10			
CITRUS		1		5			2								22		35		15	22	6	15	1			
CLAY							2		1		1	4		5	114		824	2	15	3	3	6	1			
COLLIER							2				1	87		32	1,698	12	11		4	25	6	20	181			
COLUMBIA	2	231	11	1	1	2	312	14	123		3	87		30	2,591	2	322	1	4	25	6	20	181			
DADE							20	8	26		7	37		1	57		168		2	26	5	2	22			
DESOTO	6	97	4	87			3	4			1	7			309	2	432		2	15	1	4	2			
DIXIE	1		1				3		4		1				12		11		3	1			1			
DUVAL		2		6			3	5			1				37		11		1	1						
ESCAMBIA		14					1				3				37		4		1							
FLAGLER															47		6		1							
FRANKLIN							10		136		3	73		25	1,743	3	404		8	42	9	74	143	2		
GADSDEN							3		8		1				30		7		1	5		9	6			
GILCHRIST															91		14		1	2						
GLADES		10		2		2		3	3		1				78		43			14						
GULF																										
HAMILTON																										
HARDY																										
HENDRY																										
HERNANDO		4					10								141		11			3		1	33			
HIGHLANDS	3	282	4	4	3	9	231	1			3	73		2	1,743	3	404		8	42	9	74	143	2		
HILLSBOROUGH		3													30		7		1	5						
HOLMES		10		2		2		3	8		1				91		14		1	2		9	6			
INDIAN RIVER																										
JACKSON																										

TABLE II
CASES OF REPORTABLE DISEASES, BY COUNTIES, FLORIDA, 1947 — AND STATE TOTALS FOR 1945 AND 1946 (Continued)

COUNTIES	MENINGITIS-OTHER	MUMPS	OPHTHAL, NEO.	PARASITIC, OTH.	PARATYPHOID	PPELLAGRA	PNEUMONIA, ALL FORMS	POLIOMYELITIS	RABIES, ANIMAL	RABIES, HUMAN	SALMONELLA	SCARLET FEVER	SMALLPOX	STREP. INF.	SYPHILIS	TETANUS	TUBERCULOSIS, ALL FORMS	TULAREMIA	TYPHOID	TYPHUS	UNDULANT FEVER	VINCENT'S ANG.	WHOOPING COUGH	LEPROSY	PUERPERAL INF.	ROCKY MT. SPT. FEVER
JEFFERSON		6	1	57					17		12	1		1	33		15		1	2	2		31			
LAFAYETTE		8		29					2						13		40			5	5		37			
LAKE									4		4	5			332		20		1	3	5	3				
LEE		3		19			5	2							180		90			2	5	2				
LEON		12					1	2							748		23		1	2	1					
LEVY									3						15		7			4	1					
LIBERTY		1	1												83		25			4	2					
MADISON		1		42			1								129		16			10	3					
MANATEE		9					2								253		60		1	1	2					
MARION															48		23			11	1					
MARTIN		1													50		41			3	4					
MONROE		2		59											57		33			11	1					
NASSAU															60		21			3	1					
OKALOOSA															24		1			1	1					
ORANGE															810		269		2	8	1					
OSCEOLA	2	71					2	4	11		16	12		4	58		37		3	5	1					
PALM BEACH		11					2	1			1	15			1,067		81		1	2	1					
PASCO		13	1				2	37	1		1	1			1,067		25		3	3	1					
PINELLAS		2	1	1			4	1	1		1	31			447		221		5	18	3	6				
POLK		19	1	2			34	9	6		4	1			667		185		6	13	3					
PUTNAM		4	1	3											195		29		1	4	5					
ST. JOHN		11		1				2	12		1	1			108		36									
ST. LUCIE		5		3			2	2	5		1	3			245		30			10	1					
SANTA ROSA		14	1	55			3				11	1			109		33			2	1	4				
SARASOTA		9		92											284		49			1	5					
SEMINOLE	1														72		14			7						
SUMTER				12											193		21			4						
SUWANEE				4											18		17			7						
TAYLOR				18											213		13		2	6						
UNION		1	2	16			1	2	60		11	8		1	382		91			1						
VOLUSIA		2		2											34		14			2	1					
WAKULLA															22		4			1						
WALTON															54		22			12						
WASHINGTON																										

PREVENTABLE DISEASES

VENEREAL DISEASE CONTROL

R. F. SONDAG, M.D.

With the development of penicillin for rapid venereal disease treatment, we now have the means at our disposal to render non-infectious virtually every case of syphilis and gonorrhea that can be brought to treatment. With the discovery of streptomycin as an effective antibiotic agent in the treatment of granuloma inguinale, we likewise have at our disposal a therapeutic agent which now renders this disease non-infectious and effects a cure in a very short time. Modern science, therefore, has made it possible to arrest syphilis in as few as ten days. This is important for the victim, but it means also that he or she can't spread the disease to anyone else. THAT'S IMPORTANT TO SOCIETY. A victim of gonorrhea can be cured in as few as four hours and is also rendered non-infectious at the same time. Patients with granuloma inguinale frequently have progressive lesions for many years, but with streptomycin it is now possible to render them non-infectious in five days' time and effect a permanent cure.

The Rapid Treatment Center at Melbourne is the chief bulwark in the venereal disease control program in Florida. Equally important, though, are the case finding activities carried on by private physicians and county health departments. There is only one way people can catch venereal diseases—that is by intimate contact with someone who has a venereal disease in an infectious stage. Unless those who have a venereal disease are rendered non-infectious immediately, venereal diseases will continue to spread.

The statistical tables covering the venereal disease control program for 1947 follow:

FIGURE 1
TOTAL SYPHILIS REPORTED BY YEARS

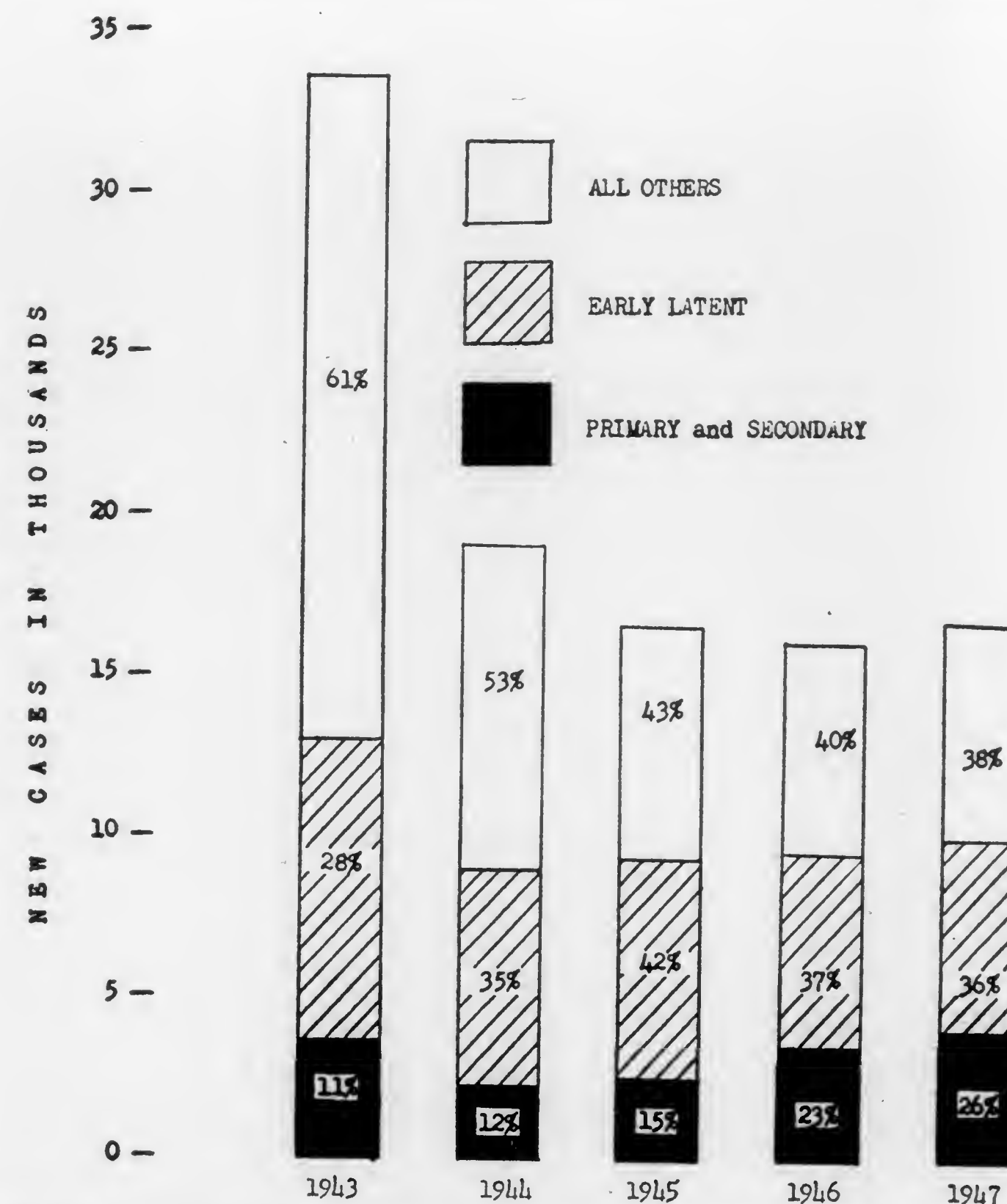


TABLE III—NUMBER OF SYPHILIS CASES REPORTED BY STAGE OF INFECTION SHOWING NUMBER AND PERCENT AS TO TREATMENT SOURCE 1947

Stage of Syphilis	Total Cases Reported	TREATMENT SOURCE					
		R. T. C.		CLINIC		OTHER	
		Number	Percent	Number	Percent	Number	Percent
Primary and Secondary	4,364	1,629	37.	863	20.	1,872	43.
Early Latent	6,041	2,113	35.	1,580	26.	2,348	39.
Late and Late Latent	4,879	1,053	22.	872	18.	2,954	60.
Congenital	408	215	53.	104	25.	89	22.
TOTAL SYPHILIS*	16,653	5,010	30.	3,568	21.	8,075	49.

(Out of State Cases Excluded)

*Includes Unknown Stage of Syphilis.

TABLE IV—ADMISSIONS AND READMISSIONS TO FLORIDA RAPID TREATMENT CENTER BY DISEASE, STAGE OF INFECTION, RACE AND SEX, BY MONTH* FOR 1947

DISEASE AND STAGE OF INFECTION												RACE AND SEX							
ADMISSIONS																			
READMISSIONS																			
SYPHILIS																			
MONTH OF ADMISSION	Primary and Secondary	Early Latent	Late and Late Latent	Pregnancy**	Congenital	Central Nervous System	TOTAL	Gonorrhea	Other V. D.	Diagnostic and Post Treatment Obs.	No V. D.	Total Admitted	Syphilis	Gonorrhea	Other V. D.	Total Readmissions	White		Colored
January	239	306	101	49	37	83	905	10	25	19	66	1025	43		1	43	102	99	431
February	233	309	78	8	23	60	711	4	14	8	52	789	19			20	59	63	364
March	207	331	102	41	33	91	735	4	16	6	34	795					54	65	389
April	176	420	77	**	48	28	759	2	18	2	46	827					56	76	303
May	141	252	80	**	29	38	540	5	14	4	44	602			1	1	50	55	213
June	207	196	79	**	18	33	533	3	13	1	23	455	1			1	593	50	48
July	184	115	57	**	16	18	415	3	13		19	434	2			3	458	34	35
August	242	94	47		11	18	412	2	11								42	41	166
September																			
October																			
November																			
December																			
TOTAL	1629	2113	621	98	215	334	5010	30	125	40	324	5529	65		3	68	447	482	2124
Percent	29.1	37.8	11.1	1.8	3.8	6.0	89.6	.5	2.2	.7	5.8	98.8	1.1		.1	1.2	8.0	8.6	37.9

*Ernest Hinds Center, Jacksonville, closed Feb. 28, 1947. Melbourne Center opened July 7, 1947.

**Pregnancies counted in proper stage of syphilis starting August 1, 1947.

TABLE V—NUMBER OF PREVIOUSLY UNTREATED V. D. CASES DIAGNOSED OR ADMITTED TO CLINICS, 1947

Period	Primary and Secondary	Early Latent	Congenital	Other Syphilis	Total Syphilis	Gonorrhea	Other Venereal Diseases	Total Venereal Diseases
TOTAL	2,330	3,754	283	1,455	7,642	18,600	879	27,121
Jan.-Mar.	684	1,068	82	437	2,271	4,451	242	6,964
Apr.-June	556	929	62	348	1,895	4,835	223	6,953
July-Sept.	612	846	99	389	1,946	5,035	260	7,241
Oct.-Dec.	478	731	40	281	1,530	4,279	154	5,963

TABLE VI—NUMBER OF CONTACTS OBTAINED BY CLINICAL PERSONNEL INTERVIEWING KNOWN CASES OF V. D., 1947

Period	Primary and Secondary	Early Latent	Congenital	Other Syphilis	Total Syphilis	Gonorrhea	Other Venereal Diseases	Total Venereal Diseases
TOTAL	2,128	2,236	151	840	5,355	12,335	303	17,993
Jan.-Mar.	592	701	71	329	1,693	3,147	96	4,936
Apr.-June	598	529	46	183	1,356	3,549	96	5,001
July-Sept.	480	516	26	174	1,196	3,189	54	4,439
Oct.-Dec.	458	490	8	154	1,110	2,450	57	3,617

TABLE VII—NUMBER OF PERSONS BROUGHT TO TREATMENT AS A RESULT OF EPIDEMIOLOGIC INVESTIGATIONS, 1947

Period	Primary and Secondary	Early Latent	Congenital	Other Syphilis	Total Syphilis	Gonorrhea	Other Venereal Diseases	Total Venereal Diseases
TOTAL	986	2,133	153	945	4,217	4,798	125	9,140
Jan.-Mar.	323	718	62	309	1,412	1,331	40	2,783
Apr.-June	251	522	41	272	1,086	1,300	41	2,427
July-Sept.	229	445	24	200	898	1,205	27	2,130
Oct.-Dec.	183	448	26	164	821	962	17	1,800

TABLE VIII—DISTRIBUTION OF V. D. DRUGS AS TO RECIPIENT AND KIND FOR 1945 - 1947

DRUGS	PRIVATE PHYSICIANS			CLINICS, HOSPITALS, R. T. C.			TOTAL DISTRIBUTED		
	1945	1946	1947	1945	1946	1947	1945	1946	1947
Mapharsen (In doses)	13,080	14,688	3,265	234,880	68,205	72,798	247,760	82,893	76,063
Neosphenamine (In doses)	1,340	1,012	10	2,165	2,104	547	3,505	3,116	557
Suplatharsenamine (In doses)	5	55		1,045	541	24	1,590	596	24
Trypanamide (In doses)	380	204	70	4,780	2,094		5,160	2,298	
Bismuth (In cc's)	14,040	17,240	3,960	264,790	139,480	75,870	278,880	156,720	79,680
Sulphathiazole (In grams)	1,000	7,500	6,500	199,190	201,482	223,000	200,190	208,932	229,500
Distilled Water (In cc's)	144,300	103,000	27,800	2,783,200	1,432,600	599,700	2,927,500	1,535,600	627,600
Tartar Emetic (In cc's)	125	125	145	3,880	4,595	3,540	3,705	4,720	3,685
Pencilin (100,000 unit vial)	747	1,184	20	107,862	82,954	11,819	108,609	84,138	11,889
Pencilin (200,000 unit vials)		269	103		9,693	9,344		9,962	9,447
Pencilin (500,000 unit vials)					3,110			3,110	
Pencilin in Oil (3,000,000 unit vials)		41	110		1,235	8,501		1,276	8,611

1945 Totaled	10,860,900,000	Oxford Units
*Penicillin Distributed—1946 Totaled	15,789,200,000	Oxford Units
1947 Totaled	28,906,300,000	Oxford Units

TABLE IX
TOTAL NUMBER OF SYPHILIS CASES REPORTED BY STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE, AGE GROUPS, AND THE NUMBER AND PERCENTAGE OF CASES REFERRED TO THE RAPID TREATMENT CENTER, BY COUNTIES, FLORIDA, 1947

COUNTY	STAGE OF INFECTION						RACE AND SEX				Source of Ref.		AGE GROUP						Cases Referred to Rapid Treatment Center							
	Primary	Secondary	Early Latent	Late Latent	Late		Total	White		Colored		Clinic or Inst.	Priv. M. D.	0-9	10-19	20-29	30-39	40-49		50-Over	Not Stated					
					Other	C. N. S.		Congenital	Not Stated	Male	Female											Male	Female			
Alachua	54	35	136	88	4	21	16	15	350	33	18	17	109	196	10	249	101	7	86	133	53	31	2	16	82	
Baker	2	13	7	1	1	2	34	5	3	4	19	3	4	19	3	15	49	101	7	11	10	5	4	2	13	
Bay	30	37	139	51	1	10	9	8	284	11	25	3	94	123	14	191	93	14	25	28	94	123	6	3	2	148
Bradford	9	14	54	8	1	7	5	27	2	47	7	5	13	27	2	47	123	3	16	69	10	3	6	2	49	
Brevard	12	14	53	49	2	6	4	8	178	11	17	5	56	93	3	55	123	3	13	27	38	27	23	2	83	
Broward	48	45	250	144	3	6	18	58	44	39	43	159	269	17	33	283	4	73	226	103	48	42	20	127		
Calhoun	4	4	13	14	3	3	6	41	5	3	5	10	23	2	1	2	283	4	14	9	8	2	2	4	117	
Charlotte	3	3	4	1	1	1	1	12	3	2	2	1	4	2	5	7	29	2	2	3	3	3	2	2	45	
Citrus	1	1	6	17	1	1	4	4	33	3	3	6	12	6	4	55	18	4	14	23	12	6	14	2	15	
Clay	5	14	35	12	1	1	1	1	73	5	10	25	33	3	2	4	18	4	3	5	5	2	6	1	44	
Collier	1	6	2	10	1	1	1	1	22	1	3	2	7	8	2	4	8	5	12	12	6	10	6	3	36	
Columbia	9	10	40	42	2	7	4	114	13	7	18	36	52	62	2	53	81	7	176	339	241	189	84	489		
Dade	327	203	565	477	9	18	17	82	1,698	57	283	244	518	627	20	848	650	54	7	33	639	359	241	13	4	
Dade	19	17	29	1	1	1	7	80	5	2	14	27	37	3	21	59	4	1	1	33	14	8	4	4	36	
DeSoto	8	19	17	29	1	1	7	80	5	2	14	27	37	3	21	59	4	1	1	33	14	8	4	4	36	
Dixie	2	2	10	1	1	1	4	1	7	3	4	1	4	1	1	4	1	1	1	4	1	1	1	1	57	
Duval	283	508	900	616	3	33	38	174	2,588	127	253	322	725	1,177	111	1,106	1,572	21	286	976	536	311	192	266	571	
Escambia	45	119	323	192	1	13	1	646	27	56	89	194	302	5	493	132	5	132	47	104	47	30	26	272		
Flagler	5	4	33	11	1	3	5	57	38	2	3	31	20	1	36	21	2	7	12	7	9	5	3	47		
Franklin	1	2	16	14	1	3	6	10	15	4	22	16	15	4	22	16	2	7	24	7	7	6	4	2	8	
Gadsden	47	36	111	25	2	2	2	221	33	2	1	7	76	132	4	126	95	1	48	96	37	18	12	9	96	
Gilchrist	2	2	10	1	1	1	1	12	1	1	1	4	6	1	5	7	1	4	8	6	1	1	1	7	58	
Glades	3	10	9	1	1	1	1	7	7	3	3	8	12	16	7	16	7	2	2	9	10	1	1	1	7	
Gulf	8	3	34	25	2	2	2	73	7	3	12	18	39	1	26	47	1	11	25	14	11	3	8	16		
Hamilton	1	6	18	11	1	1	1	32	2	3	3	10	20	3	27	10	1	4	11	5	1	2	4	2	22	
Hardee	1	1	7	2	1	1	1	15	1	1	3	1	5	6	10	5	1	1	5	5	1	3	2	4	27	
Hendry	1	2	21	5	1	1	1	36	1	3	6	7	11	23	4	9	38	3	3	22	12	3	2	5	17	
Hernando	1	5	12	16	1	1	1	47	3	6	4	8	18	3	5	31	1	4	9	14	7	1	1	8	22	
Highlands	20	12	50	48	1	3	6	141	11	11	53	55	8	41	100	1	19	60	26	15	19	11	10	48		
Hillsborough	219	322	389	570	17	45	39	142	1,743	61	269	488	891	8	711	1,032	14	223	605	346	245	210	100	398		
Holmes	9	5	11	2	1	2	1	30	1	8	17	3	3	2	22	8	7	15	33	20	9	3	8	9	30	
Indian River	5	5	41	27	2	2	2	11	91	3	10	9	13	28	61	17	1	23	33	20	9	14	8	32		
Jackson	6	6	25	35	2	2	2	6	33	3	2	3	15	6	26	65	3	28	23	13	6	3	2	1	19	
Jefferson	5	7	4	7	1	1	1	13	3	3	8	10	12	5	4	9	17	1	9	12	5	3	2	1	32	
Lafayette	1	1	5	4	3	2	2	12	13	3	2	2	6	2	132	200	8	54	113	80	47	25	5	8	26	
Lake	17	32	44	69	2	7	14	12	332	17	19	29	122	106	9	71	109	3	32	53	33	29	17	13	46	
Lee	19	32	44	69	2	7	14	12	332	17	19	29	122	106	9	71	109	3	32	53	33	29	17	13	46	

TABLE IX
TOTAL NUMBER OF SYPHILIS CASES REPORTED BY STAGE OF INFECTION, PREGNANCY STATUS, RACE AND SEX, SOURCE OF REFERENCE, AGE GROUPS, AND THE NUMBER AND PERCENTAGE OF CASES REFERRED TO THE RAPID TREATMENT CENTER, BY COUNTIES, FLORIDA, 1947 (Continued)

COUNTY	STAGE OF INFECTION						RACE AND SEX				Source of Ref.		AGE GROUP					Cases Referred to Rapid Treatment Center										
	Primary	Secondary	Early Latent	Late Latent	Late		Congenital	Not Stated	Total	Pregnancy	White		Colored		Clinic or Inst.	Priv. M. D.	AGE GROUP					Not Stated	Number	Percent				
					Other	C. N. S.					Male	Female	Male	Female			Not Stated											
Leon	61	235	227	110		2	15	98	748	13	55	24	215	186	298	247	501	7	81	184	104	63	34	272	81	11		
Levy	7	15	40	24			3	2	91	9	3	6	30	49	3	51	40	2	22	28	20	7	5	6	47	52		
Liberty	1	1	1	1			1	1	15	1	3	2	6	4		15	15	2	2	6	4	1	2	1	19	127		
Madison	10	16	27	25			3	2	83	15	6	4	20	52	8	53	30	17	37	22	11	6			43	59		
Manatee	18	16	59	31			4	2	129	5	4	5	42	78	3	112	17	28	56	18	10	13		2	84	65		
Marion	6	57	104	59			5	2	253	16	15	4	134	134	7	148	105	53	87	41	25	29		13	115	45		
Martin	3	10	22	9			2	5	48	1	4	2	11	28	3	25	23	9	11	8	9			2	26	54		
Monroe	3	6	14	23			1	2	50	1	5	1	12	12	7	21	19	4	20	13	4			6	17	34		
Nassau	4	15	22	12			1	1	57	8	8	16	14	28	1	27	25	11	19	13	4			6	24	42		
Okaloosa	15	14	18	9			2	2	60	7	10	18	15	14	3	35	25	8	26	11	3	6		6	25	42		
Okeechobee	3	2	14	4					24	2	2	2	7	13		1	33	4	11	2	3				9	38		
Orange	64	70	323	247			6	13	87	810	84	81	215	331	99	174	636	6	74	277	221	116	78		38	177	22	
Oscola	2	7	21	23			1	1	58	4	5	9	17	25		25	33	1	12	17	15	3			37	64		
Palm Beach	103	111	433	313			25	35	41	1,067	46	74	360	536	20	533	534	4	167	393	228	152	86		37	446	42	
Pasco	10	13	22	25			1	3	77	7	9	15	16	33	4	18	59	1	14	24	16	11	7		24	31		
Pinellas	65	79	176	98			3	8	16	2	447	37	51	123	197	26	230	7	94	165	77	42	36		29	150	34	
Polk	71	97	218	155			1	18	17	90	667	38	89	197	278	35	208	459	7	114	228	125	71	60	53	208	31	
Putnam	12	17	70	85			1	6	4	195	22	15	21	46	111	2	55	140	1	34	81	31	25	18		46	24	
St. Johns	6	17	52	24				8	108	13	5	7	40	49	7	54	54	1	46	115	49	18	10	3	9	39	36	
St. Lucie	33	24	69	54			1	12	53	246	15	9	8	91	127	11	130	116	3	46	115	43	22	8	9	79	32	
Santa Rosa	1	1	1	1			2	1	16	2	4	6	3	3		14	2	2	3	3	6	3	1		7	44		
Sarasota	16	15	30	28			3	4	13	109	5	17	7	46	36	3	54	55	15	43	23	13	12	3	41	38		
Seminole	9	25	103	132			3	9	3	284	15	12	13	104	150	5	105	179	46	85	50	28	20	52	68	24		
Sumter	9	3	30	28			2	2	72	6	11	3	21	25	12	17	55	3	32	15	8	12			16	22		
Suwanee	38	15	127	6			1	3	3	193	5	9	9	82	89	4	24	109	1	38	66	15	25	6	42	33	17	
Taylor	2	8	3	3			1	1	18	2	3	1	3	11	3	9	9		6	6	2	1			4	22		
Union	3	6	11	4				9	24	1	3	3	6	15	3	22	2		12	5	2	1			16	67		
Volusia	35	34	136	136			2	7	23	9	382	26	36	121	173	18	178	209	13	54	125	91	34	34	31	111	29	
Wakulla	2	4	10	5			1	1	22	2	1	4	4	10	3	9	13	1	6	5	7	1			3	11	50	
Walton	2	4	17	5				5	24	4	5	7	9	13	3	25	9	1	20	9	1		2	1	10	29		
Washington	9	7	28	7			1	2	84	8	10	8	9	25	2	40	14	2	12	20	13	2	2	3	3	25	46	
State Hospital	2	1	68	119			52		88	1	13	14	28	20	13	88			7	21	24	35			2	46		
State Prison	1	1							189	1	48	2	125	14		189			18	63	61	29	17	1				
Naval Air Station											2	2	1	3		3												
Out of State	8	12	29	24			2	25	100	2	40	18	21	15	6	35	65		11	33	18	8	22	8				
TOTALS	1,817	2,567	6,070	4,543	56	304	410	986	16,753	878	1,787	1,790	5,079	7,245	852	7,688	9,065	177	2,383	5,998	3,392	2,077	1,474	1,252	5,010	30		

TYPHUS FEVER STUDIES

E. R. RICKARD, M.D.

During the year the State-wide survey of typhus fever in Florida begun in 1946 was completed. A detailed report of the results of this survey was furnished to State and local health officers and sanitarians who were directly concerned with the control of typhus fever and a condensed edition of the report was presented at the annual meeting of the American Public Health Association. The survey which covered cases occurring in 1944, 1945 and 1946 demonstrated that typhus had been approximately two and one half times as prevalent throughout the State during this period as indicated by the numbers of previously reported cases. Homes rather than places of business were found to have been the most common sources of infection. The disease was found to occur with about equal frequency in urban and rural regions. An epidemic recession was noted in the greater part of the State irrespective of whether control measures had been applied, although in two counties where these measures had been extensively carried out, the recession appeared to have been more marked than in the rest of the State.

The study of dosages of murine typhus vaccine in human beings done in cooperation with the International Health Division Laboratory was completed. A report upon the results of these experiments is being prepared by one of the staff of the Laboratory.

In July a new staff member, Doctor C. Brooke Worth, was assigned to the project and the scope of the investigations was widened to more detailed studies of all phases of the disease in a limited area. Hillsborough County was chosen as the area for study. From July through September a survey of the common native mammals was carried out. A collection of museum skins was prepared, and habitats occupied by the various species were determined. In October, investigation of the disease in the animal and arthropod hosts was begun in representative areas in the county. Commensal and wild rats, other small mammals and birds have been trapped alive. The animals have been routinely bled for complement fixation tests to determine the incidence of past infection. Samples of their ectoparasites have been taken for identification which has been done by the Bureau of Entomology of the Florida State Board of Health. The animals have been marked for subsequent identification and released with the

objectives of not disturbing the natural equilibrium and of subsequently being able to estimate the time at which any individual became infected. The results of these investigations for the period October 15th to December 31st, 1947, are summarized in the following table.

COMPLEMENT FIXATION RESULTS OF THE EXAMINATIONS OF ANIMALS
TRAPPED AND BLED, OCTOBER 15th TO DECEMBER 31st, 1947.

Species	Number Trapped	Number Bled	Number Positive	Percent Positive Sera
Norway rat	45	44	4	9.1
Roof rat	123	83	15	18.1
Cotton rat	94	70	15	21.4*
Rice rat	14	12	0	0
Opossum	1	1	0	0
Burrowing owl	5	3	0	0

* The apparently higher incidence of positive sera in cotton rats is offset by the fact that most of these were positive only in very low dilutions and may represent non-specific reactions.

Although the percentage of positive serum examinations has been low, it should be noted that the survey of human typhus has indicated that the disease is now in an epidemic recession. Likewise, these examinations were begun in the season of the year when typhus is known to begin to decline.

Serum specimens were obtained from 459 persons who had had typhus or had been suspected of having had the disease and whose cases had been investigated during the course of the recent survey. These specimens were obtained with the objectives of determining the accuracy of the complement fixation test as an indicator of past infection and as an additional check upon the true prevalence of the disease as indicated by the survey. The examination of these sera was completed by the end of the year. Although results have not been completely tabulated, preliminary analysis has suggested that the complement fixation test indicates past infection in approximately 85 to 90 percent of the cases up to a period of three years after illness. The performance of these tests also served the purpose of training personnel in serological procedures useful in the study of typhus in human, mammalian and arthropod hosts.

DIVISION OF INDUSTRIAL HYGIENE

JOHN M. McDONALD, M.D.

The Division of Industrial Hygiene, which was created in 1946 has now completed its first full year of operation. Its program was as follows:

1. A survey of industrial plants which had not been visited in the U. S. Public Health Service survey of 1946, in order to discover potential hazards to employees' health; and to inform industrial management of the services available through the Division.
2. The organization of the analytical laboratory.
3. Response to all requests for services from industry and to requests for talks to organized groups.
4. Planned studies of:
 - a. The naval stores industry.
 - b. Lead exposures.
 - c. The phosphate mining industry.
 - d. The commencement of a citrus dermatitis investigation.
5. Investigation of occupational disease claims.
6. Integration of the industrial hygiene program with the Workmen's Compensation Division of the Florida Industrial Commission.
7. Close cooperation with other health services in the State Board of Health, other state agencies, and with the medical profession.
8. Instruction of division personnel by attendance at meetings and lecture courses.
9. Technical study to enable director and engineer to pass their State Board examinations.

Progress under the above program is summarized as follows:

1. In all, 303 visits were made to 239 plants employing 24,731 people. This includes 30 visits to 25 plants to make technical studies of potential health hazards. Improvements recommended were 128 in number.
2. The analytical laboratory made 560 examinations on the 127 samples submitted. Among these were the first blood and urine lead level determinations to be made available in the State of Florida.

3. Requests for services totalled 33. Examples concerned lead exposures in storage battery plants, carbon monoxide exposures in trucks carrying passengers, and working conditions in a textile plant. Among the 13 complaints investigated was one to determine the severity of atmospheric pollution arising from the operation of a non-ferrous metal plant alleged to be producing toxic fumes. Another concerned the source of sulfur bearing gases said to arise from a phosphate plant.

4. The investigation of the naval stores industry covered 8 plants. One new potential hazard disclosed was the presence of acid fumes caused by the use of sulfuric acid sprays to increase the flow of gum. Technical lead studies were done in 3 smelters and 4 storage battery plants. In one of the latter, regular pre-employment and periodical physical examinations were instituted and satisfactory progress is being made in the improvement of working environment. Industrial hygiene surveys were made of 3 phosphate mines. Numerous samples of rock and dust were collected and analyzed in the chemical laboratory. Following the investigation of citrus dermatitis begun by Dr. D. J. Birmingham of the U. S. Public Health Service in January, followup investigation was initiated to be continued next year.

5. During the year, 51 occupational disease claims were investigated, and several interesting leads for future study were uncovered.

6. Consultation to the Workmen's Compensation Division of the Florida Industrial Commission included:

- a. Field instruction of Commission Inspectors.
- b. Attendance at hearings on proposed regulations for the control and prevention of occupational diseases.
- c. Revision and amplification of the above mentioned regulations. This included a complete re-writing of the Code as proposed, together with the addition of lists of respiratory protective equipment, lighting requirements, and regulations for work under compressed air.
- d. Conference with inspectors of the Commission.
- e. Address at the Florida Industrial Commission Conference at Miami Beach.

7. Whenever necessary, industrial management was advised of the health services available in County Health Units, such as chest x-rays. In all questions of sanitation and in-plant feeding establishments, management was referred to the local health unit.

8. The engineer attended a ten weeks' course on industrial hygiene at the Georgia School of Technology, as well as other technical meetings. The director attended several technical and association meetings, and gave 8 talks on various aspects of industrial hygiene.

9. Both the director and the engineer tried and passed their State Board examinations.

Some idea of the magnitude and diversity of the problems confronting the division may be obtained from a study of the following table of occupational disease claims for the current year. (See Table X.)

TABLE X
OCCUPATIONAL DISEASE CLAIMS, 1947

TOTAL		1241
Conjunctivitis		225
Welders	209	
Chemical	16	
Infections		46
Repeated Motion, Pressure & Shock		28
Heat		35
Respiratory Irritations		31
Gas		8
Carbon Tetrachloride		1
Metals		7
Lead	3	
Zinc	3	
Other	1	
Silicosis		1
Dermatitis		859
Alkali	197	
Solvent and Oil	100	
Other Chemicals	118	
Fruit	120	
Plant	31	
Larva Migrans	116	
Fungus	90	
Other	1	

CANCER CONTROL

R. F. SONDAG, M.D.
J. B. HALL, M.D.

Prior to 1947 initial steps were taken to develop a cancer control program with the aid of federal funds. The first phases consisted chiefly of liaison activities with the American Cancer Society, Florida Division, the Cancer Control Committee of the Florida Medical Association, the Florida Radiological Society, the Florida Pathological Society and various other medical groups.

The first step in the development of a well rounded cancer control program was the development of a state-wide tissue diagnostic mailing service. This service was developed by the Bureaus of Preventable Diseases and Laboratories in cooperation with the Florida clinical pathologists. All of the Florida pathologists agreed to cooperate and have done so since the inauguration of the plan in March 1947. The plan provided that the biopsy would be sent directly to the pathologist of the physician's choice. After examination of the tissue the pathologist's report is returned directly to the physician. The State Board of Health pays a flat fee of \$5.00 for all appropriate specimens from individuals certified as medically indigent.

During the ten months in which the service has been offered, 302 specimens have been examined under the plan. The sites from which the biopsies were taken were chiefly the cervix, skin, and exposed mucous membranes. A limited number were removed at operation from internal tumor masses.

The pathological diagnosis indicated malignancy in 118 (39 per cent). An additional 32 (11 per cent) were non-malignant neoplasms. The remaining 152 (50 per cent) were chiefly due to various inflammatory lesions. The predominating malignant tumors diagnosed were basal cell carcinoma and carcinoma of cervix.

The patients from whom the specimens were removed were as follows:

White Male	54
White Female	164
Colored Male	22
Colored Female	55
No data as to sex or color	7
Total	302

The males of both colors were chiefly in the older age brackets. The age peak for white females was 30 to 39 years and for colored females 40 to 49 years.

The individuals served resided in 50 of Florida's counties. Polk and Monroe use the service more freely than other areas. Considering population there was limited demand from the urban centers with hospital facilities available for the indigent.

Since there was no state law on cancer control nor a state appropriation, the Bureau of Preventable Diseases, in cooperation with the American Cancer Society, Florida Division, drew up a cancer control bill for presentation to the State Legislature in April. The Legislature passed this bill and it became a law without the Governors signature on June 16, 1947. The title of the bill was as follows:

"AN ACT TO PROMOTE THE PREVENTION AND CURE OF CANCER: TO AUTHORIZE THE FLORIDA STATE BOARD OF HEALTH TO ESTABLISH A STANDARD FOR THE ORGANIZATION, EQUIPMENT, AND CONDUCT OF CANCER UNITS OR DEPARTMENTS IN HOSPITALS OR IN CLINICS IN THIS STATE: TO CONDUCT AN EDUCATIONAL CAMPAIGN FOR THE CONTROL OF CANCER: TO PROVIDE A PLAN FOR THE CARE AND TREATMENT OF INDIGENT PERSONS SUFFERING FROM CANCER."

The State Legislature provided an appropriation of \$200,000 per year for cancer control activities. These funds were incorporated in the State Board of Health general appropriation and are especially earmarked for the cancer control program. The funds under the state appropriation were made available with the beginning of the fiscal year July 1, 1947. In addition, the sum of \$40,000 was received from the U. S. Public Health Service for the cancer control program.

With federal and state funds available, the plans which heretofore remained in a discussion stage were now placed into effect. The cancer control program was then able to render service to medically indigent cancer patients, and the procedure for handling such patients was developed. Tentative rules and regulations, fee schedules, and forms were developed and adopted by the Board on September 20, 1947. At this meeting the Board also created a Division of Cancer Control and Dr. J. B. Hall was appointed as director. The tentative rules and regulations, procedure for handling cancer patients, and fee schedules were incorporated in a cancer manual and became effective November 1, 1947. The regulations state:

Cancer clinics were visualized and are in the process of being established in the following counties: Duval, Dade, Escambia, Orange, Hillsborough, and Palm Beach. These counties make up most of the urban population in the state and it was deemed advisable to have general diagnostic and treatment facilities in these areas. These cancer clinics must make their services available to the surrounding counties if they expect to receive financial assistance under the state aid program.

Much needed equipment was purchased for those clinics which were established and in most counties where cancer clinics are to be established equipment will be supplied and funds provided for full time personnel to carry on the activities of the clinic. The greatest handicap met thus far in establishing cancer clinics has been lack of space. Once the cancer clinics are established and the minimum standards met, Florida will have one of the best cancer programs in the nation. In addition to the diagnostic and treatment centers, information and detection centers are operating in Alachua and Volusia Counties.

The cancer program has had a slow start because of the multitudinous problems connected with a medical care program. This included working out arrangements with local health departments, city and county hospitals and their medical staffs, the medical specialists, and the medical profession in general. The cooperation on the part of all has been excellent. Since inaugurating the program a total of 196 cases of cancer have been approved for state aid. Of this number treated for cancer, only three have died. The location of cancer in the patients approved for state aid was as follows:

	MALES	FEMALES
Gastrointestinal	7	8
Genitourinary	21	8
Breast		31
Uterus - Cervix		56
Lung	2	1
Bone	4	
Skin	34	23
Brain Tumor	1	
	<hr/> 70	<hr/> 126
Total	196	

Of the total number approved for state aid the following types of services were rendered:

Major and minor operations	52
Hospitalization	39
X-ray and radium therapy	144

The average amount spent per case was \$84.22; however additional expenditures for radium, x-ray therapy, and hospitalization can be anticipated on many of these cases.

Cancer reporting improved during 1947, but the number of deaths occurring from cancer more than doubled the number of cases reported. During the year there were 1,025 cases reported as a disease, and 2,643 deaths. It is evident that much remains to be done to reduce this appalling death rate and focus more attention on the early diagnosis and treatment of those lesions which later develop into cancer.

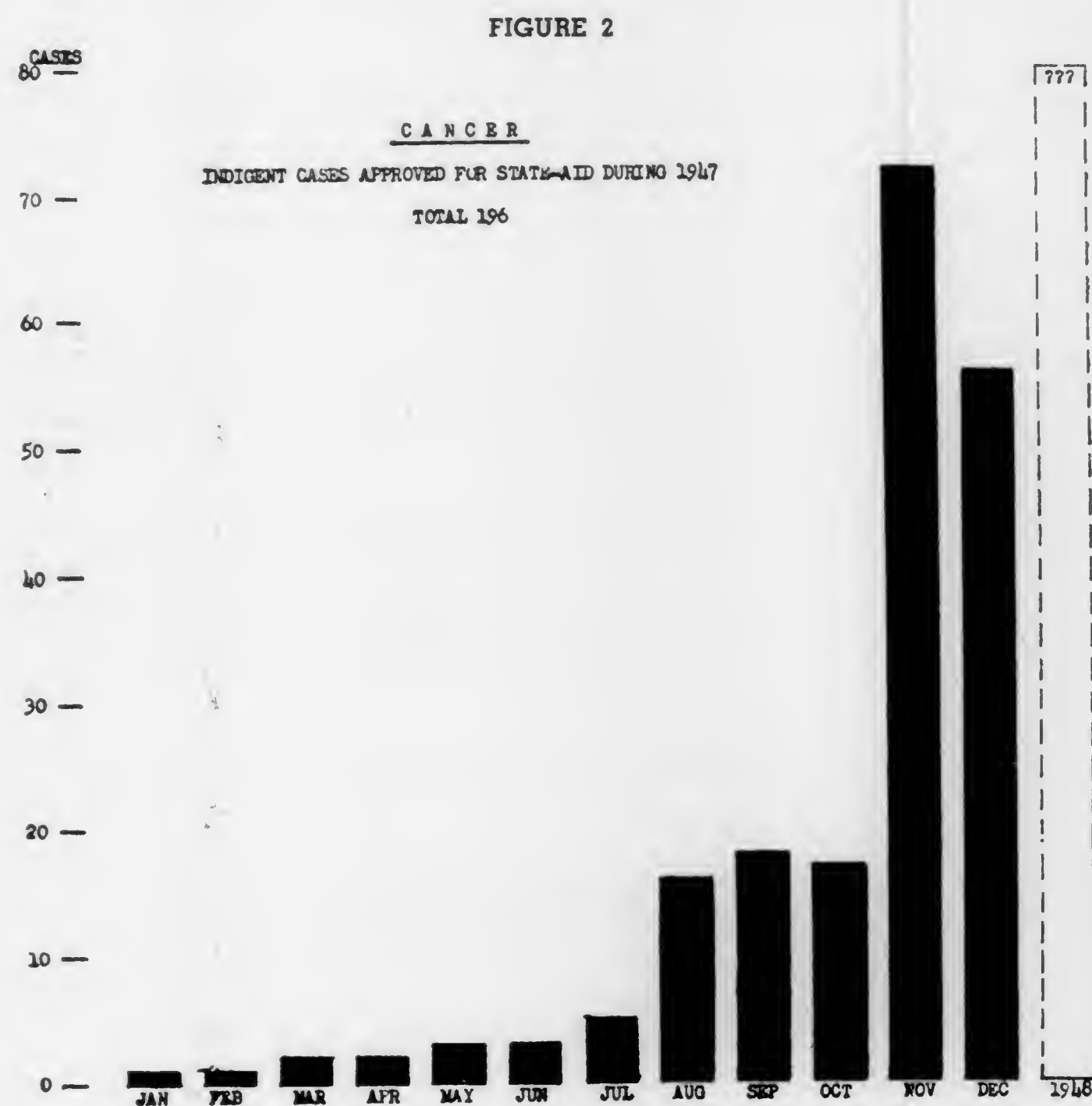
During 1947 the cancer program had a good beginning, but most of the cases approved for state aid were patients with well developed cases. Our efforts in the future will be toward early diagnosis of cancer, and with effective lay and professional education, the death rate from cancer should be considerably reduced.

"Most of the federal and state funds available for the control of cancer and other malignant tumors will be expended in the various counties of the state under the direction of the county health departments, but under the rules and regulations prescribed by the State Board of Health. Counties not having health departments will have a lump sum reserved at the State Board of Health for use in these counties; such funds to be expended directly under the supervision of the Bureau of Preventable Diseases."

The working principles of the cancer control program are as follows:

1. The patient must be a resident of Florida one (1) year immediately subsequent to the date of application.
2. Patient must be medically indigent and certified either by the local welfare board and/or the county health officer.
3. No funds are available for out of state treatment.
4. No money is to be expended on terminal cases.
5. Fees will be paid as outlined in the manual for hospitalization, radium therapy, surgery, etc.
6. These funds cannot be used to replace or substitute for local funds appropriated for indigent medical care.

Since it was evident that the proper treatment of cancer required certain basic equipment and that cancer patients should preferably be treated where they would be given the advantage of the best possible diagnostic and treatment facilities, the next step in the program was the development of adequate cancer diagnostic and treatment facilities. The Board passed a regulation specifying a certain deadline after which all state and federal cancer control funds would be expended only on indigent patients who had been routed through an approved clinic meeting the minimum standards of the State Board of Health.



SUPPLY SECTION

During March a Supply Section was created jointly by the Bureaus of Preventable Diseases, Laboratories, and Local Health Service. All the forms, drugs, biologicals, laboratory containers, and other supplies were placed under the supervision of this section.

With the creation of a Supply Section, and the services of a full time employee, it was possible to render better service to the county health units and hospitals requesting drugs and supplies, and it was possible to keep better records of the drugs and biologicals distributed.

The amount of drugs and biologicals distributed by month and for the year is shown on the following table.

TABLE XI—DRUGS AND BIOLOGICALS DISTRIBUTED, 1947

	Average per Month	Annual Total
Bismuth, 30cc	58	699
Bismuth, 60cc	38	463
Bismuth, 500cc	13	152
Crystoids	494	5,931
Diphtheria Anti-toxin, 10,000 Units	152	1,828
Diphtheria Anti-toxin, 20,000 Units	35	420
Diphtheria Tetanus Combined, 2cc	40	482
Diphtheria Tetanus Combined, 30cc	115	1,386
Diphtheria Toxoid, 10cc	166	1,994
Diphtheria Pertussis Vaccine, Sauer, 6cc	14	173
Diphtheria Pertussis Vaccine, Sauer, 24cc	44	539
Diphtheria Pertussis Tetanus Combined, 10cc	670	8,036
Immune Serum Globulin	146	1,759
Insulin, Globin, 10-U-40	44	530
Insulin, Globin, 10-U-80	61	743
Insulin, Plain, 10-U-20	48	580
Insulin, Plain, 10-U-40	298	3,579
Insulin, Plain, 10-U-80	69	835
Insulin, Protamine Zinc, 10-U-40	547	6,567
Insulin, Protamine Zinc, 10-U-80	292	3,504
Mapharsen, .04	42	509
Mapharsen, .06, Cloarsine .067	1,201	14,419
Mapharsen, 0.6, Cloarsine 0.67	316	3,795
Penicillin, 100,000 Units	120	1,451
Penicillin, 200,000 Units	366	4,400
Penicillin, 300,000 Units (P.O.B.)	579	6,955
Pertussis, Upjohn, 5cc	41	494
Pertussis, Upjohn, 20cc	109	1,316
Pertussis, Sauer, 24cc	53	636
P.P.D. Tuberculin, 1st Strength (Pkgs. of 10)	48	584
P.P.D. Tuberculin, 2nd Strength (Pkgs. of 10)	46	552
Rabies Vaccine (per 14 dose series)	113	1,422
Schick Test	88	1,058
Silver Nitrate (Pkgs. of 2 each)	1,427	17,127
Sulfathiazole Tablets (Bottles of 1,000 each)	36	434
Tuberculosis Patch Tests	1,616	19,397
Tarter Emetic	52	628
Tetanus Anti-toxin, 1500 Units	99	1,190
Tetanus, Anti-toxin, 10,000 Units	39	475
Tetanus Toxoid, 1cc	33	400
Tetanus Toxoid, 30cc	169	2,034
Tetrachlorethylene, 8mm, 5cc	1,216	14,598
Tetrachlorethylene, 16mm, 1cc	876	10,515
Typhoid Paratyphoid Combined Vaccine, 20cc	1,715	20,584
Vaccine Points (Pkgs. of 10 each)	1,191	14,299
Water, distilled, 10cc Bottles	454	5,455

BUREAU OF TUBERCULOSIS CONTROL

C. M. SHARP, M.D., Director

During the year 1947, the general activities of the Bureau of Tuberculosis Control have shown a marked increase over those of 1946. Statistical summaries have been prepared showing variations between 1946 and 1947 in various graphs and tables which follow.

DEATH RATES

The death rate from tuberculosis showed an increase over 1946. During the year 1946 there were 685 deaths from tuberculosis with a death rate of 29.3 per 100,000 population which was the lowest rate that has ever been recorded for the State of Florida. During the year 1947 the number of deaths increased to 760 with a death rate of 31.6 per 100,000. As usual the death rate among the Negroes was much higher than among the white population, in spite of the fact that the morbidity among the Negroes apparently shows very little variation when compared to the white population. Table XII and Fig. 3 show the tuberculosis mortality rate by race from the year 1917 through 1947, and it might be noted that this is the first year since 1940 that there has been an increase in the death rate.

An explanation for the increase in the death rate could possibly be that due to an intensified case finding program, many advanced cases were found during the preceding year, which probably would not have been diagnosed as having tuberculosis. As many as 481 cases were first reported during 1946 who were in the far advanced stage of the disease and an additional 347 cases in the moderately advanced stage of the disease. It is safe to assume that during 1948 the rate will continue to decline since there are proportionately fewer cases reported in the advanced stage and more cases reported in the early stage with a better chance for recovery.

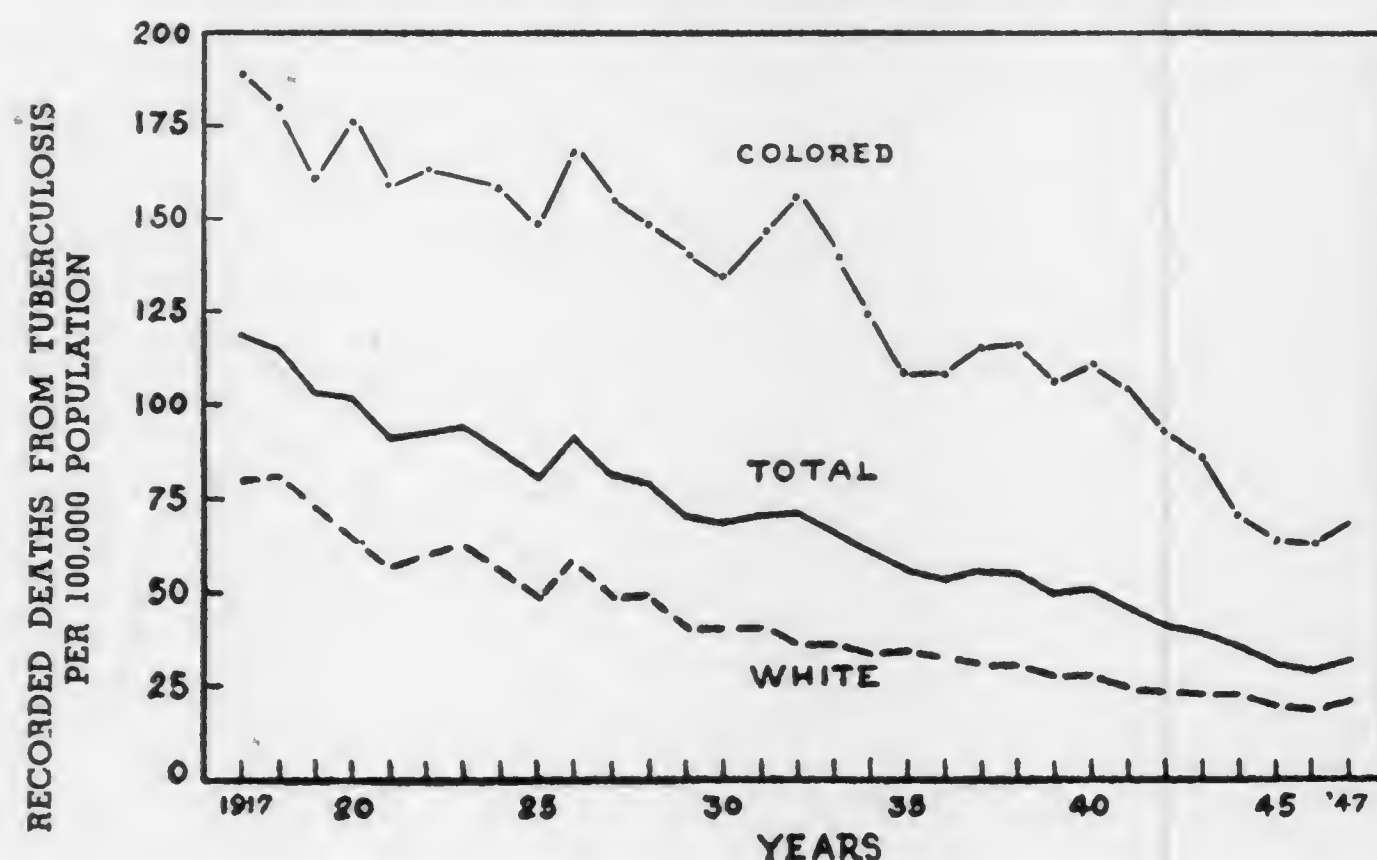
REPORTED CASES

During 1947 there were 4,335 cases of tuberculosis reported in the State of Florida against 2,437 cases reported in 1946. In Fig. 4 we have attempted to analyze the sources of reporting cases for the calendar year 1947 as compared with the sources of reporting cases for 1946. It reveals many striking features. Whereas in 1946, of all cases reported 29.4% were first reported by health

TABLE XII
RECORDED DEATHS FROM TUBERCULOSIS (All Forms) AND DEATH RATES
PER 100,000 POPULATION, BY COLOR, FLORIDA, 1917-1947

YEAR	TOTAL		WHITE		COLORED	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
1947	760	31.6	371	20.2	389	68.0
1946	687	29.4	333	18.8	354	62.7
1945	701	30.9	340	19.9	361	64.9
1944	791	36.0	369	23.1	422	70.8
1943	834	39.2	363	22.9	471	87.1
1942	859	41.8	360	23.6	499	93.6
1941	916	46.1	362	24.8	554	105.5
1940	961	50.3	379	27.2	582	112.4
1939	921	49.7	376	27.9	545	107.3
1938	987	55.0	407	31.4	580	116.4
1937	966	55.6	400	32.0	566	115.8
1936	905	53.9	387	32.3	518	108.2
1935	903	55.7	397	34.5	506	107.9
1934	953	60.1	381	33.9	572	123.9
1933	1,039	66.9	398	36.1	641	142.1
1932	1,093	71.5	395	36.5	698	156.2
1931	1,067	70.8	427	40.1	640	144.8
1930	1,015	68.6	432	41.3	583	134.0
1929	1,014	70.8	416	41.3	598	140.6
1928	1,102	79.7	481	49.7	621	149.5
1927	1,097	82.2	463	49.8	634	156.4
1926	1,187	92.3	519	58.3	668	169.0
1925	999	80.8	426	50.0	573	148.7
1924	1,054	88.7	437	56.2	597	159.1
1923	1,079	94.7	490	63.3	589	161.2
1922	1,019	93.5	440	59.9	579	163.0
1921	951	91.3	401	57.6	550	159.3
1920	1,016	102.3	423	64.3	593	176.8
1919	993	103.7	461	73.4	532	161.6
1918	1,084	115.9	494	81.2	590	180.4
1917	1,085	118.9	472	80.3	613	188.7

FIGURE 3
TUBERCULOSIS DEATH RATES, BY COLOR, FLORIDA, 1917-1947.



departments, during the year 1947, of all cases reported 53.4% were first reported by health departments. Another outstanding fact made evident by this graph is that during the year 1947 there is a marked reduction in the number of cases first reported by death certificates. Of all cases first reported, 12.1% were first reported by death certificate in 1946, whereas in 1947 only 3.7% were first reported by death certificate. Another point that should be brought out in connection with reporting is that 9.2% of the cases reported in 1946 were first reported after admission to tuberculosis sanatoria, whereas in 1947 there was a drop to 4% of cases first reported by tuberculosis sanatoria. This in conjunction with the increased reporting from local health departments shows that cases are being found and reported before admission to sanatoria and before death.

A detailed analysis of the new cases reported during the year for the 31 counties in the Central Case Register which comprise 71% of the total population of the state is shown in Table XIII. This represents an analysis of 3,514 of the 4,335 cases reported in 1947. This table shows a break down of cases reported by stage of disease, race and sex, source of report, and age group.

FIGURE 4
COMPARISON IN PERCENTAGES OF TUBERCULOSIS CASES
REPORTED BY SOURCE OF REPORT, FLORIDA, 1946 and 1947

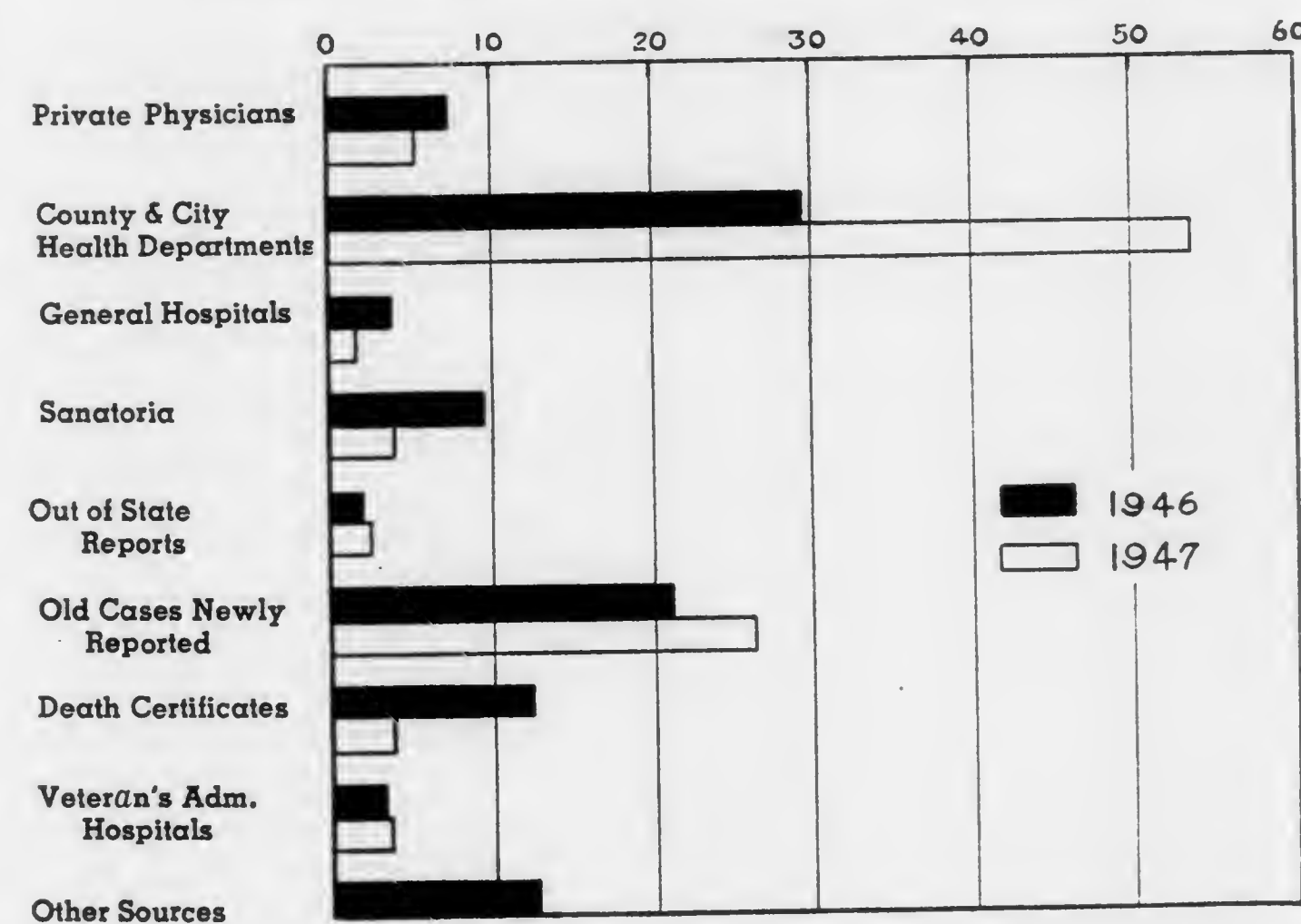


TABLE XIII
ANALYSIS OF 3514 CASES REPORTED DURING 1947 OF COUNTIES IN THE CASE REGISTER BY STAGE OF DISEASE, RACE AND SEX, SOURCE OF REPORT AND AGE GROUP, FLORIDA, 1947

COUNTY	STAGE OF DISEASE							BY RACE AND SEX				SOURCE OF REPORT							BY AGE GROUP											
	Non Pulmonary	Primary Active	Minimal	Moderate Active	Far Advanced	Stage Unknown	Total	White		Colored		Total	Private Physicians	City and County Health Departments	General Hospital	Sanatorium	Out of State	Old Cases Newly Reported	Death Certificates	Veterans Hospital	Total	0-10	11-20	21-30	31-40	41-50	51-60	61 and Over	Age Unknown	Total
								Male	Female	Male	Female																			
Alachua	5	64	33	31	12	145	53	43	24	25	145	17	44		2		74	4	4	4	145	3	7	23	24	40	20	21	7	145
Baker	3	3	24	20	15	8	70	21	37	10	2	70	5	40	4	4	1	10	1	1	6	3	6	12	9	15	11	1	3	70
Bay	8	3	3	5	2	21	34	2	4	1	21	6	9				9				21	3	6	4	2	5			21	
Bradford	8	15	15	18	9	65	24	14	17	10	65	6	37	34			2	11	4		65	8	7	15	8	9			65	
Broward	5	283	251	261	72	872	458	282	72	60	872	10	586		7	18	185	10	22	22	872	2	25	120	190	203	167	138	27	872
Dade		6	1			9	5	3	1	4	9	5					3				9	2	2	2	2	2			9	
Dixie	3	3	73	111	77	354	142	79	90	43	354	10	146	6	11	8	117	26	30	30	354	7	17	72	92	64	44	21	37	354
Duval		58	49	41	3	181	88	51	16	26	181	2	96		16	7	50	6	4	4	181	4	8	45	44	33	23	20	10	181
Escambia		6	1	3		11	4	4	1	2	11	3	7		2		3			11	2	7	9	19	9	10	9	5	11	70
Franklin		2	36	7	14	11	70	30	17	13	70	3	27	11	1		26	1	1	1	70	2	7	9	19	9	10	9	5	70
Gadsden		6	6	2	3	13	6	3	4	1	13	1	8		1		5			13	1	2	2	1	3	2	1	3	1	13
Gulf		6	2	1		10	6	3		1	10	1	5		1					10	1	1	1	3	2	1	1	3	1	10
Hernando	2	102	121	126	43	394	181	131	48	34	394	7	312	14	14	6	35	9	11	394	4	9	54	69	78	82	72	26	394	
Hillsborough		13	12	15	7	47	23	10	7	7	47	2	15		14		16			47	4	11	11	14	8	8	4	2	47	
Jackson		2	1	2	6	14	5	3	2		5				1					5	2	1	3	2	4	9	6	6	43	
Lafayette		6	26	13	10	67	18	13	21	15	67	11	32	3	3	1	16	1	3	67	6	7	14	10	11	6	10	3	67	
Lake	1	9	1	8		19	6	5	3	19	2	11	2				5			19	1	1	3	3	3	2	5	1	19	
Levy	2	17	6	10		45	19	20	3	3	45	4	18	3	3	17	2	1	1	45	1	2	5	9	12	6	7	2	45	
Monroe	3	4	73	60	56	70	286	111	84	39	32	266	15	118	6	4	113	7	3	266	6	8	9	41	49	49	40	38	34	266
Nassau		14	4	4		26	11	8	1	6	26	1	17	3	3		3	2	2	26	2	2	4	6	2	4	6	2	26	
Orange		3	58	35	38	22	156	73	56	15	12	156	11	68	6		62	6	3	156	3	3	23	28	30	30	31	8	156	
Pasco		1	23	7	10	6	46	20	12	9	5	46	2	28	1	1	11	2	1	46	1	4	5	7	9	7	14	3	46	
Polk		3	5	6	5	2	12	9	2	1	12	1	10	3	3		2	1	1	12	1	2	2	1	4	5	5	3	12	
Santa Rosa		3	5	6	5	2	18	7	6	3	2	18	3	11	3		2	1	1	18	1	3	17	17	3	11	19	4	18	
Seminole		4	17	3	1	3	20	13	7	4	2	20	3	5	1	5	21	1	3	20	5	3	17	17	3	11	19	4	79	
Sumter		7	7	9	3	1	20	13	7	4	2	20	3	5	1		3			20	1	1	1	4	7	4	2	7	20	
Suwannee		1	187	7	39	66	369	162	107	55	45	369	11	199	4		157	13	1	369	2	33	50	96	77	66	77	45	369	
Volusia		18	52	1,175	885	873	511	3,514	1,595	1,059	498	362	3,514	124	1,963	53	1,001	98	100	3,514	61	120	536	701	724	588	554	230	3,514	
Washington (Fla. State Hospital)																														
TOTALS																														

*-Reported by Fla. State Hospital.

It will be noted that the largest number of cases reported, as would be expected, continue to be from the largest county health departments. The largest number reported was 872 cases from Dade County. This was undoubtedly due to the mass X-ray survey which was conducted during the latter part of the year in this county. The second largest number was 394 cases of tuberculosis reported by Hillsborough County. This is a considerable increase over 1946 and is probably due to the fact that continuous X-ray surveys were being done with the stationary 70 mm survey unit located in the health department in Tampa. The number of cases reported from Duval County was approximately the same as in 1946.

A striking feature of this table is that approximately 24% of these tuberculosis cases reported during the year 1947 were among the Negroes which comprise 24% of the population of the state. It shows that the reporting incidence among the Negroes is approximately the same as among the whites.

During 1946 and 1947 an analysis was made of the current examination status of patients in the register, as shown by Table XIV, and it was found that there has been an appreciable increase in the over-all average of patients who are current in their examination status. In 1946 the over-all average of patients with current examination status in the case register was 25%, whereas in 1947 the over-all average has increased to 38.8% in current examination status.

An analysis of the tuberculosis cases in the Central Case Register as of December thirty-first, 1947, is very enlightening. It shows that of a total of 7,417 cases in the register, 6,157 are

TABLE XIV
PERCENTAGE OF TUBERCULOSIS CASES WITH CURRENT EXAMINATION STATUS IN 31 COUNTIES OF FLORIDA AS OF JANUARY 1, 1947. INCLUDES ONLY CASES AT HOME, EXCLUDES CASES IN SANATORIUM.

RANK	COUNTIES	PERCENT	RANK	COUNTIES	PERCENT
1	Dixie	77.8	17	Dade	39.6
2	Pasco	72.3	18	Nassau	39.6
3	Gulf	70.2	19	State Average	38.8
4	Bradford	70.0	20	Broward	36.8
5	Seminole	62.7	21	Sumter	35.0
6	Wakulla	62.5	22	Bay	34.8
7	Volusia	58.6	23	Suwannee	32.1
8	Washington	57.9	24	Leon	30.0
9	Baker	56.3	25	Levy	27.3
10	Monroe	51.4	26	Escambia	23.5
11	Alachua	50.0	27	Hernando	22.7
12	Gadsden	50.0	28	Duval	22.4
13	Santa Rosa	48.5	29	Lake	22.2
14	Polk	48.3	30	Jackson	21.7
15	Orange	43.9	31	Lafayette	20.0
16	Franklin	42.9		Hillsboro	15.7

cases who are at home, while 1,260 cases are located in sanatoria. Table XV shows a breakdown of the home cases by activity and sputum status. Compared with the previous year there are fewer patients at home with positive and undertermined sputum, and approximately twice as many patients with negative sputum. The number of inactive cases has increased and sanatorium admissions increased from around 900 in 1946 to 1,260 in 1947.

TABLE XV
HOME CASES OF TUBERCULOSIS IN STATE REGISTER BY ACTIVITY AND SPUTUM STATUS, FLORIDA, 1947

Activity and Sputum Status		Home Cases	Percent
ACTIVE	Positive Sputum	769	12.5
	Undetermined Sputum	2,354	38.2
	Negative Sputum	343	5.6
Questionable activity		430	7.0
Inactive		2,261	36.7
TOTAL		6,157	100.0

An analysis of the number of cases reported during 1947 shows that almost all of the increase in reporting cases was in the white race, and while the number of cases among the Negroes increased, there was a proportionate decrease in the percentage of cases reported as exemplified by Table XVI and Fig. 5.

Comparison of the number and percentage of the cases reported by age groups is also very revealing. It shows that there has been a rather definite increase in the percentage of cases reported in the age groups over forty years, while there has been a very definite decrease in the percentage of individuals reported with tuberculosis under the age of forty years. This is shown in Table XVI and Fig. 6.

TABLE XVI
COMPARISON OF NUMBER AND PERCENTAGE OF REPORTED TUBERCULOSIS CASES, BY RACE AND SEX, AND BY AGE GROUPS, FLORIDA, 1946 AND 1947

	1946		1947	
	Cases	Percent	Cases	Percent
TOTAL	2,437	100.0	4,335	100.0
White Male	950	39.0	1,987	45.8
White Female	581	23.8	1,289	29.7
Colored Male	453	18.6	614	14.2
Colored Female	316	13.0	445	10.3
Unknown	137	5.6	...	...
AGES	55	2.3	76	1.8
0-10 Years	123	5.0	152	3.5
11-20 Years	446	18.3	661	15.3
21-30 Years	514	21.1	847	19.5
31-40 Years	414	17.0	832	20.3
41-50 Years	311	12.8	707	16.3
51-60 Years	291	11.9	711	16.4
61 Years and Over	283	11.6	299	6.9
Age Unknown				

FIGURE 5
COMPARISON OF PERCENTAGE OF TUBERCULOSIS CASES REPORTED BY RACE AND SEX, FLORIDA, 1946 & 1947

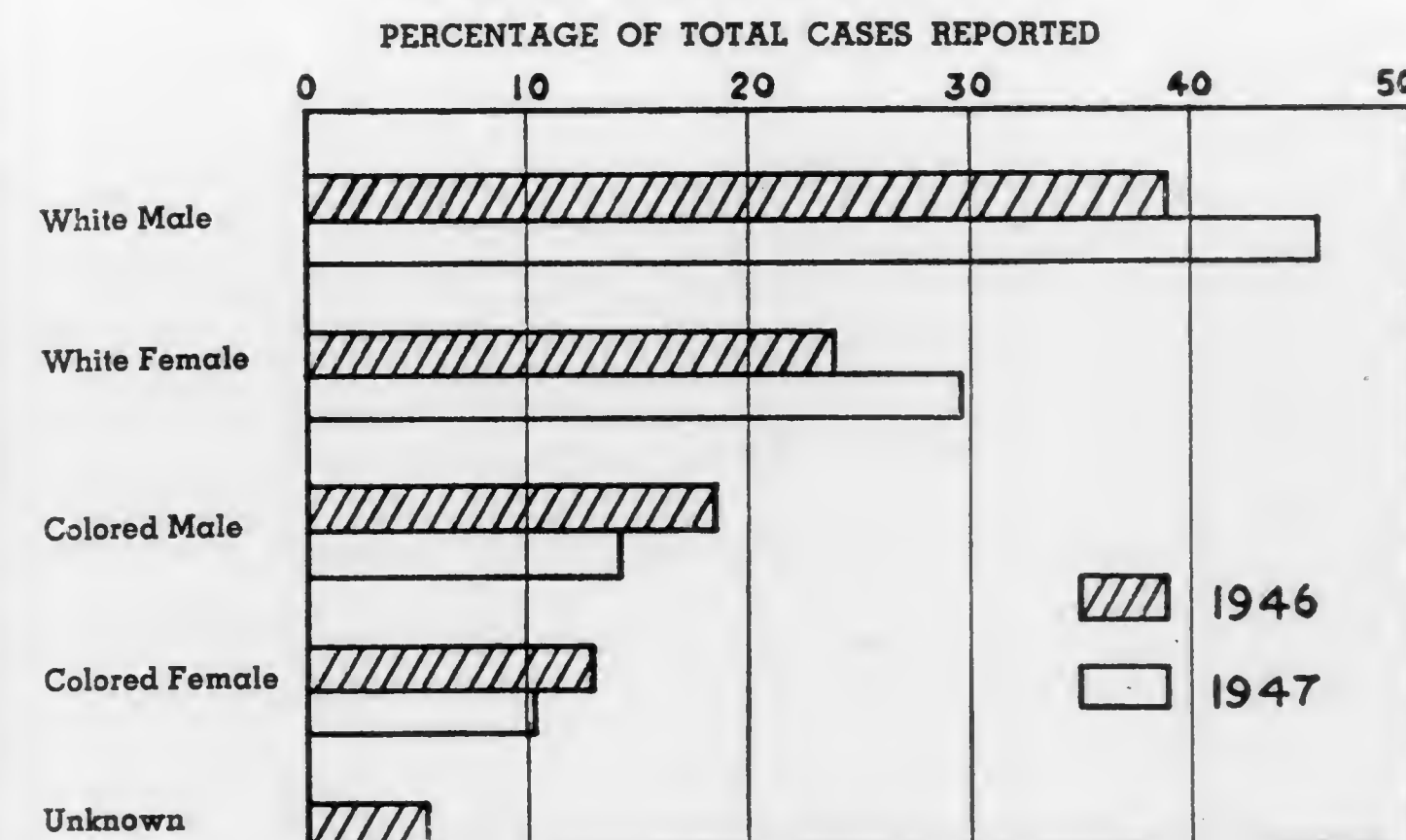
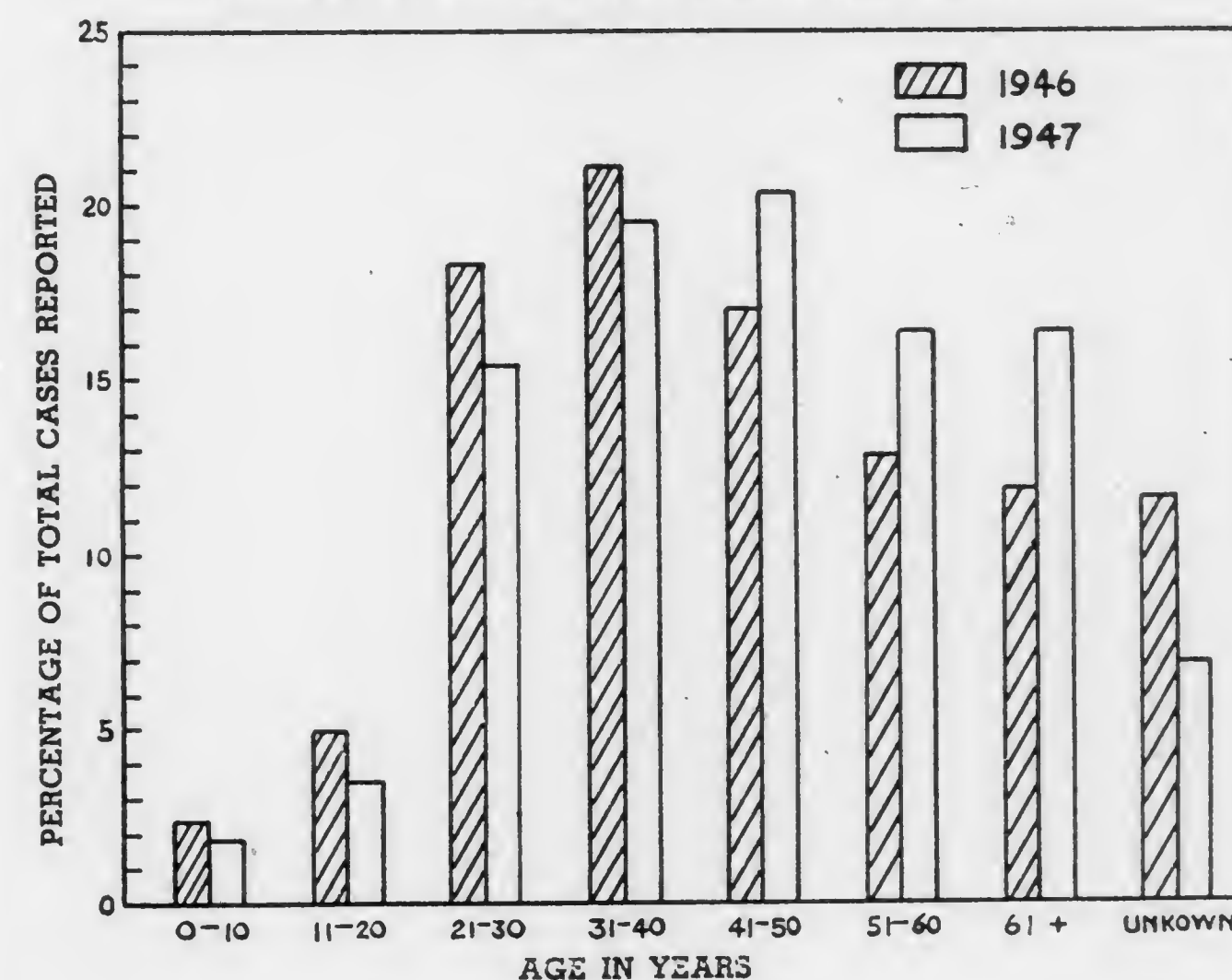


FIGURE 6
COMPARISON OF PERCENTAGE OF TUBERCULOSIS CASES REPORTED, BY AGE GROUPS, FLORIDA, 1946 AND 1947



DIAGNOSTIC CLINICS

During the past year almost all of the permanent diagnostic clinics which have been located in the health departments of the larger counties have been placed in operation and the Bureau of Tuberculosis Control is constantly receiving X-ray films for interpretation from units placed in these health departments. Sixteen of these units are now in operation. In addition to the permanent diagnostic clinics in the health departments, treatment facilities for indigent patients have been made available to regional health department units which include Escambia and the surrounding counties, Jackson and the surrounding counties, Pinellas County, Volusia County, Orange County, Hillsborough County, and Dade County.

The diagnostic X-ray clinics show a marked increase in the number of films taken. During 1947 there were 9,434 X-ray films read by the Bureau of Tuberculosis Control received from local health departments, private physicians, itinerant clinics, and tuberculosis and health associations as compared to 6,324 films read in 1946. A critical analysis of these films is shown under Table XVII where the film interpretations have been broken down according to diagnosis, color, sex, and decade of life.

A few comments on the clinic and consultation X-rays are in order. These consultation films are taken on contacts, suspects, known cases for follow-up, patients displaying symptoms, and follow-up of mass X-ray surveys. It is very noteworthy that the number and percentage of earlier cases of tuberculosis is much higher in 1947 than in 1946. It may be pointed out that during 1946 only 3.2% were minimal while in 1947, 12.7% were minimal, 3.8% were moderately advanced in 1946 while 6% were moderately advanced in 1947, and 3% were far advanced in 1946 while 2.4% were far advanced in 1947. As usual the groups showing the highest percentage of reinfection tuberculosis were the white males over 60 years of age and the colored males between 50 and 60 years of age. Of all the films examined during 1947, a total of 23% showed evidence of reinfection tuberculosis as compared with 13.7% during 1946.

MASS CASE FINDING

One of the principal activities of the Bureau of Tuberculosis Control has been mass case-finding, using portable and mobile 70 mm X-ray equipment which has been concentrating on community-wide X-ray services.

TUBERCULOSIS

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TABLE XVII
TOTAL NUMBER OF CLINIC AND CONSULTATION X-RAYS INTERPRETED DURING THE YEAR 1947 DIVIDED INTO STAGE OF DISEASE, AGE, SEX AND COLOR, WITH PERCENTAGE OF PATHOLOGY IN THE VARIOUS CATEGORIES

AGE	COLOR AND SEX	MINIMAL		MOD. ADVANCED		Far Advanced	Arrested	Primary	Suspectious	Other Pathology	Total
		Active	Inactive	Active	Inactive						
0-10	W-M	137	2	0	0	1	0	35	11	6	192
	W-F	172	0	0	0	0	0	50	22	13	257
	C-F	56	0	0	0	0	1	26	2	4	89
11-20	W-M	330	1	3	0	1	3	11	38	17	409
	W-F	370	7	2	0	1	4	5	16	12	422
	C-F	134	0	5	0	3	0	7	19	11	176
21-30	W-M	277	16	23	5	12	15	0	42	31	448
	W-F	484	22	14	2	10	18	0	43	22	644
	C-F	104	6	9	1	7	5	0	23	11	166
31-40	W-M	264	2	2	1	11	3	0	15	10	322
	W-F	311	34	45	15	13	17	0	48	40	581
	C-F	479	41	22	1	11	19	0	35	40	720
41-50	W-M	110	6	11	4	9	5	0	24	13	194
	W-F	200	8	5	2	9	8	0	25	6	274
	C-F	233	51	49	13	20	15	0	62	48	558
51-60	W-M	323	60	25	9	6	18	0	50	27	560
	W-F	75	6	13	2	14	4	0	34	28	192
	C-F	134	4	6	0	5	6	0	15	11	195
61 and Over	W-M	178	65	57	19	21	12	0	56	67	536
	W-F	161	48	12	14	5	10	0	25	28	319
	C-F	140	5	12	1	4	0	0	17	14	211
Unknown	W-M	98	6	5	0	4	0	0	6	7	127
	W-F	204	72	52	11	24	8	0	52	92	583
	C-F	173	43	21	12	8	0	0	31	62	388
TOTALS	W-M	66	19	9	0	3	2	0	12	6	139
	W-F	13	13	5	0	1	5	0	9	4	75
	C-F	40	2	8	2	3	0	0	13	8	92
Percentage		5,627	563	438	135	229	182	172	785	671	9,434
		59.7	6.0	4.7	1.3	2.4	1.9	1.8	8.3	7.1	99.9

This is the first full year of operation of the 6 units and the number of X-rays taken has increased from 104,606 films made during 1946 to 315,696 during the year 1947, resulting in the uncovering of many more unknown cases of tuberculosis. In 1946 only 886 cases of definite tuberculosis and suspicious tuberculosis were found on the miniature films, while 4,076 cases of tuberculosis and suspicious tuberculosis were found in 1947.

During 1947 fifty-one different communities in the State received mass X-ray survey services by this Bureau. A summary of the findings of the 70 mm project films and the 14 x 17 inch follow-up films is shown in Table XVIII. It is gratifying to note that of the 4,076 cases of definite and suspicious tuberculosis found by mass surveys in 1947, we were able to do 3,408 or 83.1% follow-up with 14 x 17 inch X-rays. Of this group, 1,873 cases of reinfection tuberculosis were demonstrated. In 1946 we were able to find only 252 cases of reinfection tuberculosis with 14 x 17 inch X-rays.

An innovation in 14 x 17 inch follow-up was started with a survey held in Dade County where, with the approval of the medical society, routine 14 x 17 inch X-rays were made of the cases of suspicious and definite tuberculosis found in the 100,124 persons examined. The interpretations of the X-ray films were made at the Bureau of Tuberculosis Control. Eight hundred eight-seven or 86.5% of the definite and suspicious tuberculosis cases found by 70 mm film were followed-up with 14 x 17 inch X-rays, and 606 patients showed definite or suspicious tuberculous pathology and were referred to their private physicians or to the chest clinic in Miami.

Since the Dade County Survey was our largest survey to date we have attempted to summarize the film findings from this survey. There were 1,025 individuals out of 100,124 examined found to have definite or suspicious tuberculosis on the 70 mm film of which 887 received 14 x 17 inch X-ray follow-up and 138 have received no follow-up to date. Of the group who received large film follow-up, 119 were negative, 162 showed evidence of other pathology, and 606 showed evidence of definite or suspicious tuberculosis.

We have also attempted to show the final recommended disposition of patients seen at the follow-up clinic after this survey and it will be noted that of the 606 cases, 423 were recommended for further follow-up. One hundred sixteen cases were recommended for hospitalization while 307 were felt to need clinical study. One hundred eighty-three cases were believed to be inactive cases requiring no additional follow-up.

TABLE XVIII
MASS X-RAY SURVEY
SUMMARY OF MINIATURE FILM AND 14" x 17" X-RAY FOLLOW-UP

LOCATION	MINIATURE FILM					14" x 17" X-RAY FOLLOW-UP ON DEF. & SUSP. TBC.		
	Persons Examined	Negative	Definite TBC.	Suspected TBC.	Other Pathology	Persons Followed- up With 14" x 17"	Percent Follow-up	Cases of TBC. Found
Alachua	10,239	10,143	12	41	43	40	75.5	23
Alachua (U. of Fla.)	16,915	16,859	5	35	16	38	95.0	13
Baker	1,208	1,200	1	4	3	4	80.0	3
Bay	10,714	10,543	29	85	57	94	90.4	37
Bradford & Clay	2,253	2,221	11	19	2	25	73.3	13
Brevard	2,602	2,541	5	35	21	3	07.5	1
Calhoun	1,346	1,329	1	10	6	11	100	10
Collier	1,302	1,281	2	18	1	7	35.0	1
Columbia	3,036	2,989	6	31	10	6	21.6	2
Dade*	100,124	98,678	225	800	421	887	86.5	606
Dade	9,153	8,276	81	518	278	599	100	181
Dade (U. of Miami)	2,597	2,577	5	11	4	15	100	9
Dixie	1,304	1,021	1	6	6	7	100	5
Franklin	1,460	1,436	4	10	20	14	100	8
Gadsden	6,606	6,532	10	44	20	32	53.3	12
Gadsden (State Hosp.)	5,629	5,256	91	222	60	313	100	234
Glades	442	436	0	4	2	4	100	3
Gulf	1,794	1,760	5	16	13	16	76.2	6
Hernando	869	858	3	7	1	10	100	9
Highlands	1,624	1,601	7	14	2	13	61.9	8
Hillsborough	27,960	27,437	132	256	135	371	95.0	244
Holmes	1,534	1,524	0	5	5	5	100	4
Indian River	2,541	2,512	8	11	10	1	05.2	1
Jefferson	1,911	1,891	3	12	5	8	60.0	5
Lafayette	541	536	1	3	1	4	100	2
Lake	2,126	2,116	1	6	3	7	100	3
Leon (Fla. A&M)	1,461	1,449	1	9	2	10	100	3
Leon (F. S. U.)	697	692	1	4	0	5	100	2
Levy	743	720	5	14	4	12	66.7	8
Liberty	818	808	3	5	3	8	100	8
Madison	3,039	2,999	3	16	21	15	83.3	7
Marion	6,159	6,066	12	60	21	64	88.9	26
Martin	2,314	2,254	6	42	12	38	79.2	15
Monroe	4,223	4,187	3	29	4	18	56.2	3
Nassau	2,443	2,407	5	22	9	17	62.9	8
Okaloosa	1,020	1,008	3	8	1	8	72.7	3
Okeechobee	641	628	0	7	6	4	57.1	0
Orange**	13,277	13,052	5	201	19	175	85.0	100
Osceola	1,632	1,586	2	36	8	7	18.4	4
Pasco	2,107	2,058	12	23	14	26	74.3	19
Pinellas	14,944	14,597	62	182	103	125	41.4	40
Polk**	16,886	16,703	38	99	56	66	84.2	33
Putnam	2,446	2,421	5	16	4	13	61.9	3
Seminole	2,862	2,785	14	53	20	54	80.6	26
Sumter	1,055	1,035	6	10	4	12	75.0	9
Suwanee	1,882	1,867	3	9	3	12	100	10
Taylor	2,837	2,810	5	16	6	21	100	14
Union (State Prison)	1,578	1,544	15	11	8	26	100	18
Wakulla	1,105	1,083	1	9	12	8	80.0	4
Walton	1,066	1,059	2	1	4	3	100	1
Usnas (Banana River)	1,994	1,979	2	10	3	12	100	4
NAS (Jacksonville)	4,520	4,469	7	34	10	41	100	25
NAS (Pensacola)	4,553	4,494	5	44	10	49	100	29
Whiting Field	1,582	1,568	4	7	3	10	90.9	6
Pensacola (City)	1,341	1,329	2	10	0	11	91.7	3
TOTAL	315,696	310,113	866	3,210	1,507	3,408	83.1	1,873

*-State and Tuberculosis and Health Association Units combined.
**-Tuberculosis and Health Association Units only.

A great deal of the credit for the success of this large survey is to be given to the Florida Tuberculosis and Health Association and the local Tuberculosis and Health Associations who participated in a cooperative endeavor to coordinate all agencies having to do with tuberculosis control.

One of the field secretaries of the State Tuberculosis and Health Association was appointed Tuberculosis Program Coordinator for the State as an official representative of the Florida State Board of Health, The State Tuberculosis Board and the Florida Tuberculosis and Health Association. Greater community response was the result of the efforts of this coordinator who brought the various groups together for discussion of the problems relating to tuberculosis. Thus greater community organization and publicity were achieved in community X-ray surveys.

TUBERCULOSIS ACTIVITIES IN COUNTIES

There has been further expansion of the tuberculosis activities in county health departments. Whereas during the year 1946 patient visits numbering 16,530 were made to the various clinics operated by local health departments, during 1947 a total of 25,712 patient visits were made. In 1947 there were 26,554 field nursing visits as well as 5,940 office nursing visits made, whereas in 1946 there were 20,069 field nursing visits and 3,212 office nursing visits made. Also during 1946 there were 596 patients admitted to State Tuberculosis Sanatoria through the local health departments, but 1,065 patients with tuberculosis were hospitalized during 1947 through the local health departments.

It will be recognized that in any tuberculosis control program, as well as any other public health program, the backbone must of necessity be the local health units.

NUTRITION INVESTIGATIONS AND SERVICES

WALTER WILKINS, M.D., Ph.D., Director

In Florida, nutrition is taking its place in the health department along with sanitation and communicable disease control as one of the important factors in maintaining health. The problem of food nutrition is one of our greatest and most complex problems in modern preventive medicine. Public health officials in Florida recognize that nutrition problems present a whole new sphere of health department responsibility.

Appraisal of nutritional status is essential in prevention and control of malnutrition. Investigations as to the extent and location of existing malnutrition and thorough studies of the relationships of signs, symptoms, and disabilities to specific deficiencies will provide some of the fundamental information needed to develop more nearly adequate health programs in the communities of Florida.

The nutrition staff devotes a great deal of time to investigations and fact-finding, but its work also includes education, demonstration, and consultation services. The investigations are directed toward determination of causes of various conditions found which suggest nutritional relationships. Obviously it would be impossible to carry out preventive measures without a knowledge as to causes of disabilities found.

Among the various problems which have already presented themselves are: anemia and borderline anemia, hookworm infestation in relation to nutrition and anemia, anemia of pregnancy, toxemias of pregnancy, relationships to various infectious diseases, various skin conditions, granulated eye lids, poor vision, retarded or abnormal bone development, relationships to learning ability, effects of nutrition on working capacity, relationship of diet to dental caries, effect of nutrition on aging processes, effects of sub-minimal vitamin C intake on health, and possible relationships of the intake of certain nutrients to mental hygiene and emotional stability.

The following types of procedures are being used:

1. Limited physical examinations
2. Laboratory tests
3. Histories
4. Diet records
5. Therapeutic tests

The so-called "therapeutic test" is one of our most useful tools and is being widely used. In every-day language it means "try-and see." When a given sign, symptom, or disability suggesting a nutritional deficiency is found, it is studied carefully in an attempt to determine what shortages, if any, are responsible. Then those nutrients thought to be lacking are given singly or in various combinations. They are usually furnished in concentrated form to different groups. Periodic observations are made to determine whether improvement occurs. Much checking and re-checking must, of course, be done in order to get results which are accurate and reliable. Otherwise false conclusions might be drawn.

As yet our facilities for nutrition appraisal are far from complete but they are serving as a starting point for the development of more satisfactory procedures for nutrition appraisal by public health workers. Facts gained by such procedures are basic to any rational nutrition program.

NUTRITION INVESTIGATIONS

ANEMIA:

More than 3,500 Florida children have been given over 15,000 hemoglobin tests this past year. Although only a small per cent had severe anemia, many had borderline or sub-clinical anemia, as judged by the usual standards. We have found the anemia to be more prevalent in rural than in urban children and more pronounced in Negro than in white children even though fewer Negro children are found to be infested with hookworms. Parallel "semi-quantitative" hookworm examinations have confirmed widespread hookworm infestation. Undoubtedly this contributes to the anemia when the infestation is heavy but apparently has little effect on the hemoglobin level when the infestation is light. Also, many children with negative hookworm reports have low hemoglobin levels.

In four counties, Polk, Hamilton, Lake, and Hillsborough, groups of children were given iron and other supplements daily in an effort to determine whether the lack of such substances is the cause of the "pale thin blood." To date, over 2,000 children have been tested therapeutically with iron. Thus far, however,

iron when given **alone** has shown very little promise in raising subnormal hemoglobin levels to normal, regardless of the presence or absence of hookworm infestation. This testing is still in progress. The cooperation of the faculty and students in the schools that participated in the testing has been very gratifying.

These blood tests have brought to light, among other things, the fact that the hemoglobin level of an individual varies during the course of the day and is usually higher in the morning than in the afternoon, a fact not heretofore recognized. Since this finding has been confirmed, at least two hemoglobin tests have been made on every child both before and after therapeutic testing—one in the morning and one in the afternoon—and the average computed.

Below is a summary of average hemoglobin levels of 231 pupils, from grades one through seven, who were divided into four groups. Three of these groups were supplemented with iron, or folic acid, or both of these substances, for a period of three months. Each child had four hemoglobin determinations before starting the therapeutic testing and four after—making a total of 1,848 tests done on this group.

TABLE XIX
EFFECT OF IRON AND FOLIC ACID, SEPARATELY AND IN COMBINATION,
ON HEMOGLOBIN LEVELS OF SCHOOL CHILDREN

Group	Supplement	Average Hemoglobin in Grams per 100 cc Blood	No.	Before	After	Improvement
1	Folic Acid	46	11.1	11.6	0.5	
2	FeSO ₄	51	11.1	11.7	0.6	
3	Folic Acid & FeSO ₄	63	11.1	12.0	0.9	
4	Control	71	11.5	12.1	0.6	

It can be seen from the above table that there was no significant rise in the average hemoglobin level of any group as compared with the controls. There were no unusual weight gains in any of the groups. At the end of the testing program hookworm treatment was given by the county health department to those who had positive stool specimens.

In the same school five children (not included above) of one family were found to have severe anemia, i.e., averaging 5.7 grams. All five had heavy hookworm infestations. During the last five weeks of school four of these children were given three small supplementary high-potency feedings daily, consisting of peanut butter, Brewer's yeast, milk, eggs, liver, etc. The average hemoglobin increase was 3.7 grams during the five week period as may be seen in the following table:

TABLE XX
THE EFFECT OF SUPPLEMENTARY FEEDING ON THE HEMOGLOBIN LEVELS
OF ANEMIC CHILDREN WITH HEAVY HOOKWORM INFESTATION

Children	Age	Grams of Hemoglobin per 100 cc. Blood			
		Before	After	Increase	Percentage Increase
J.S.	7	5.3	9.0	3.7	70
C.S.	8	4.3	8.9	4.6	107
B.S.	10	5.0	8.5	3.5	70
G.S.	11	9.5	12.2	2.7	28
Average		6.0	9.7	3.7	62
* E.S.	13	4.2	8.2	4.0	95

* This 13 year old boy (E.S.) was in a hospital at the time when this feeding was in process. There he was treated for hookworm disease and given three transfusions of whole blood. The first four children (J.S., C.S., B.S., and G.S.) were not given the hookworm treatment until the "after" hemoglobin tests were done.

It is interesting to note that this increase took place in spite of the heavy hookworm infestations. Note that the oldest child (E.S.) did not participate in the feeding program but was treated for hookworms and given three transfusions of whole blood. His hemoglobin level increased from 4.2 to 8.2 grams with a net increase of 4.0 grams. This increase was in the same range as that shown by the four children whose only "treatment" consisted of supplementary feeding at school.

An unusual type of supplementary feeding program was carried out in two schools (Polk City and Loughman) in Polk County and two schools (Green and Jasper Colored) in Hamilton County. The supplement consisted entirely of turnip green "pot likker." Two glasses per child each school-day, one in the morning and one in the afternoon, were provided for periods of from four to five months. School lunch workers cooperated in the study. In each instance this procedure failed to bring about very significant rises in average hemoglobin levels for the group. However, less tangible improvements were noted in the children by their teachers such as: fewer absences from school, fewer colds and infections, brighter eyes, increased appetites, more energy on the playground, clearer complexions, etc. Weight gains were above the average.

ACNE

The first of a series of large-scale controlled experiments designed to help determine the relation, if any, of nutritional factors to adolescent acne was conducted in Leon High School, Tallahassee. Nearly 300 students, all volunteers, participated in the tests. It was carefully explained beforehand that the procedure being used was not treatment. No promises of cure, or even of improvement, were made. Before starting the supplement, the degree of severity was graded on two consecutive days, on the

forehead, right cheek, left cheek, and chin. The following system of grading was used:

- 0 = None
- 1 = Questionable to mild
- 2 = Moderate
- 3 = Severe

The students were divided into three comparable groups which were given different combinations of vitamin concentrates. A staff nutritionist was present throughout the school day in the school clinic room. Each student reported to her once a day to take his test dose. Careful individual records were kept. The entire group was similarly graded twice at the end of three months. The examiner was present only at the beginning and end of the testing period and did not know the names of the students or to which group any of them belonged.

One of the practical applications of such findings lies in translating the successful vitamin or vitamins into terms of foods containing them. Persons having acne are usually advised, among other things, to reduce their intake of fats and sweets; however, these students were not given dietary advice until after the testing period was over. Later each student was given the opportunity of having a private conference with the nutritionist.

A similar test on acne was made on a group of girls attending Florida State University. Another smaller group of high school students in Tavares also participated in similar tests.

Following is a brief summary of the findings in Leon High School:

TABLE XXI
TOTAL GROUP OF 282 STUDENTS

Group	Number	Daily Supplement	Average Degree of Severity		Average Degree of Improvement
			Before	After	
I	86	Controls	1.3	0.9	0.4
II	108	100,000 I.U. Vitamin A 50 mgs. pyridoxine 1 multivitamin	1.1	0.5	0.6
III	88	50,000 I.U. Vitamin A 50 mgs. pyridoxine 2 multivitamins	1.2	0.5	0.7

THE 50 SEVEREST CASES
All Students With All Areas Graded "2" Or More at Beginning

Group	Number	Daily Supplement	Average Degree of Severity		Average Degree of Improvement
			Before	After	
I	19	Controls	2.3	1.7	0.6
II	17	100,000 I.U. Vitamin A 50 mgs. pyridoxine 1 multivitamin	2.5	1.4	1.1
III	14	50,000 I.U. Vitamin A 50 mgs. pyridoxine 2 multivitamins	2.5	1.2	1.3

It can be seen from examination of the above table that the more severe cases, when tabulated separately from the entire group, showed more improvement than did the group as a whole. In the 50 severest cases, the degree of improvement expressed in percent was 27% in Group I, 44% in Group II, and 53% in Group III.

ONE-DAY DIET RECORDS:

About 2,500 one-day diet records on school children were made and analyzed to determine the trends in eating patterns of groups of school children. These one-day records are often quite revealing. For instance, in one large high school, over 43% of the 740 students who participated did not have any fruit for the day. This was a typical school day in February—when citrus fruits are plentiful in Florida. Other findings were as follows:

- 12% had no vegetables
- 34% had no eggs
- 16% had no milk
- 21% had only 1 glass of milk

In another high school 35% of the children who did not eat in the school lunchroom had no milk during the day and almost 70% of them did not eat an egg. Those eating in the school lunchroom had better diets than those who ate elsewhere. Children of the Negro school in the same town showed even poorer eating habits. Over 65% of those not eating in the school lunchroom did not have milk or meat during the day; almost 20% came to school without breakfast; and 100% did not have an egg during the day.

These typical findings suggest the great amount of nutrition education work which lies ahead.

GRANTS OF SUPPLIES:

Grants of supplies for therapeutic testing have included pyridoxine from E. R. Squibb and Sons, folic acid from Lederle Laboratories, and a large supply (3,700,000) iron tablets from Mead Johnson and Company. The Kiwanis Club of Tavares furnished some of the testing materials used in the local schools. The Elks Club of Tallahassee supplied part of the supplementary nutrients used in the acne study in Leon High School. An interested citizen in Polk County provided food materials worth approximately \$1,000.00 for testing purposes in that county.

PUBLICATIONS DURING THE YEAR:

1. Wilkins, Walter. New Types of Activity for Nutrition Services in Public Health. *Milbank Memorial Fund Quarterly*, 25:3, July, 1947.
2. Wilkins, Walter. A New Public Health Approach to the Nutrition Problem. *The Interne*, June, 1947.
3. Nutrition Staff. Florida Health Notes. Nutrition Survey Issue. 39:7, July, 1947.
4. Walker, Vera W. and Wagner, Florence. Food For Children As Presented Through Summer Workshops in Florida. *School Life*. (In press).
5. Wilkins, Walter, Blakely, Ruth, and Brunson, Julia. Hemoglobin Levels of Parker High School Students. *Journal of the South Carolina Medical Association* 63:2, February, 1947.
6. Englar, T. S., Wilkins, Walter, and Blakely, Ruth. Hemoglobin Studies on Albemarle County School Children. *Virginia Medical Monthly*. (In press).
7. Wilkins, Walter, and Boyd, French. *NUTRITION FOR YOU*, Second Edition, 1947. The first edition of this nutrition booklet was prepared and used throughout the country during World War II. It has been completely revised and reprinted for use in Florida. Reprinting privileges have been offered gratis to all other state health departments.

The Director, with the assistance of staff members, prepared a section, *THE ROLE OF THE HEALTH DEPARTMENT IN NUTRITION APPRAISAL*, for a manual on nutrition surveys being published by the Food and Nutrition Board of the National Research Council. The consensus of public health officials throughout the United States and Canada regarding public health nutrition programs was obtained through a comprehensive twelve-page questionnaire. Approximately 500 copies were filled-in and returned. These furnished valuable material for use in the preparation of the above section.

NUTRITION SERVICES

EDUCATION, DEMONSTRATION, AND CONSULTATION SERVICES:

Nutrition education services have been at both professional and lay levels. Such professional services have been provided for the staffs of County Health Departments, Agricultural Extension Workers, teachers, and school lunch workers. The Director and staff members have participated in many meetings of professional groups in the fields of health, nutrition, dietetics, and home economics.

During the past year, educators in the public school system of Florida have shown great interest in the health and nutrition of their children, so that Health has become one of the areas of major emphasis in the school program and in teacher workshops. The number of requests for nutrition services has been far greater than the present staff could handle; however, discussions of problems of child nutrition, methods and materials for presenting food for children, and/or hemoglobin determinations for the teachers themselves (as a means of emphasizing personal nutrition) were provided for ten teacher workshops during 1947. In addition, one staff member gave full time to three workshops for school-lunch workers. Each of these was held in connection with a teacher workshop and each lasted three weeks. As a result of a project planned by staff members a grant was made by General Mills which provided funds for the payment of salaries of additional personnel to teach nutrition and school lunch management at three of these summer workshops. In the case of the Bay County workshop the program was unique in that every teacher attending the workshop was given training and experiences in "foods for children." A report of these workshops was prepared jointly with a school lunch specialist of the State Department of Education and has been accepted for publication in *SCHOOL LIFE*, a journal issued monthly by the United States Office of Education. Cooperation and assistance have also been given to school personnel wishing to carry on dietary studies. One such study has been reported in the form of a mimeographed bulletin for general distribution.

Nutrition education for communities and the public in general has been provided through many talks which were illustrated with slides, food, and other materials. Groups such as the Parent-Teacher Associations, health councils, women's clubs, and college and high school students were among those requesting such services. Radio scripts have been prepared, radio broadcasts made, and newspaper stories released. Consultation services on special dietary problems have been given on request, and leaflets have been prepared on nutrition in special situations, for example, for donors to the Mothers' Milk Bank of Jacksonville.

Florida is the only State in the "deep South" not requiring the enrichment of white flour, bread, and degerminated corn meal and grits. Findings have indicated that enrichment of these products would give the citizens of Florida an extra measure of health insurance. A bill requiring such enrichment was introduced in the 1947 Florida legislature, was approved by the Agriculture and Public Health Committees of the Senate, and was

passed by the Senate by a vote of 31-5. Unfortunately, however, this bill was not approved by the Public Health Committee of the House. Several members of the nutrition staff were asked to testify before Senate and House Committees as to the desirability of this bill.

During the 1946-47 term the Director served as President of the American School Health Association. At the annual meeting of this association in Atlantic City staff members gave two reports on the Florida Public Health Nutrition Program. Many individuals expressed the hope of starting similar programs in various other state health departments. A similar paper was given by the Director at the meeting of the American Public Health Association during the same week. One staff member, Miss Ruth Blakely, was elected to the Governing Council of the American School Health Association. Also during the year the Director discussed the plan and progress of the Florida public health nutrition work at the annual meeting of the Georgia Public Health Association in Atlanta and at a meeting of the Food and Nutrition Board of the National Research Council in Washington, D. C. During the year one of the nutrition consultants, Mrs. Vera Walker, served as President of the Florida Home Economics Association.

Numerous individuals who are doing nutrition work in other states and other countries observed the field work of the staff and participated in some of the activities for short periods of time. The resulting exchanges of experiences and ideas were mutually helpful.

BUREAU OF SANITARY ENGINEERING

DAVID B. LEE, M.S. (Eng.), Director

This abbreviated report covers a digest of the major activities of the Bureau of Sanitary Engineering. During the year 1946 many of the wartime stringencies were alleviated and 1947 saw much sanitation-consciousness throughout the State. Considerable improvement during the past year was effected by the Bureau, not only in the major fields of public water supply, sewerage and sewage disposal, but also in numerous other important public health engineering activities.

A serious recognition of responsibility to the public pervaded our personnel. Two engineers pursued advanced studies for degrees in public health and sanitary engineering. Field surveys, primarily in regard to stream pollution problems, were started. Numerous talks were given, in order to inform citizens more fully of the basic facts underlying better sanitation. Many investigations of sanitation conditions were made.

Just as better education brings to light more data about significant facts of living, so has this Bureau in 1947 developed more nearly to fruition the growth of a realization by many communities of important public health engineering needs. The Bureau itself, limited in endeavor only by the physical strength of its personnel, continues in daily concern for more adequate means to accomplish its statewide responsibilities in the public health engineering field.

PUBLIC WATER SUPPLY AND TREATMENT

NEW AND PROPOSED CONSTRUCTION

In Table XXII below are listed those public water projects, plans and specifications which were received for review and approval by the Bureau of Sanitary Engineering in 1947. It will be observed that 48 different projects are listed with an estimated cost of \$7,900,035.29. Similar approval was given in 1946 to 51 projects having an estimated construction value of over \$6,000,000. The marked increase in population experienced in Florida since 1940 has necessitated a noticeable increase in water plant expansions and/or additions.

TABLE XXII
PUBLIC WATER SUPPLY PROJECTS APPROVED IN 1947

MUNICIPALITY	PROJECT	EST. COST
Pahokee	Enlarged Water Treatment Plant	\$ 192,692.00
Holly Hill	Water Supply—Additional Storage	Unreported
Florida City	Water Plant & Distribution System	75,000.00
Inghis	Florida Power Corp.—Water System	15,000.00
Hialeah	Construction of Water Supply System	6000,000.00
Jacksonville	Water Supply—Country Club Estate	Still proposed
So. Jacksonville	Water Dept. Project No. Fla.—8-P-135	2,205,790.29
Niceville	Water Supply Distribution System	139,550.00
Miami Beach	11th Street Pumping Station	125,000.00
High Springs	Water Treatment Plant	73,147.00
Miami (Dade Co.)	Water Distribution System	Unreported
Jacksonville (Greenfield Manor)	Water Distribution System	10,000.00
Jacksonville (Roosevelt Gardens)	Distribution System and Well	*25,000.00
New Smyrna	Water Supply Project	258,410.00
Bay Island—Sarasota	Water Distribution System	56,440.00
Miami Beach	Sunny Isles Water Co.	Unreported
Miami	50th St. Heights Subdivision, Water Dist. Sys.	*12,500.00
Miami	Hyde Park—Water Distribution System	9,000.00
Fort Lauderdale	Water Main Extensions & Misc. Additions	15,600.00
Fort Lauderdale	Water Main Extension & Misc. Additions	60,000.00
Miami	Flamingo Village Water Distribution	*23,000.00
Daytona Beach	Water Supply Project	*424,320.00
Holly Hill	Water Storage	Unreported
Holly Hill	Water Plant Extension	Unreported
Coral Gables	University Manor Subdivision Water System	6,000.00
Jacksonville	Southside Estates Water Distribution	*50,000.00
Tarpon Springs	Water System Improvements	174,315.00
Ormond	Water Distribution System	285,590.00
Cocoa	Temporary Raw Water Supply Line	245,330.00
Flagler Beach	Water Treatment & Distribution	65,000.00
St. Johns County—(St. Augustine and vicinity)	Water Supply Project	334,430.00
Miami	50th St.—Pump House and Well	*Included prev.
Quincy	Waterworks Improvements	200,000.00
Cocoa Beach	Pumpin' Station; Water Supply & Dist. Sys.	*49,000.00
Cocoa	Improvements to Water Facilities	98,250.00
Jacksonville (Lake Forest)	Water System Elevated Tank	*20,000.00
Pensacola	Waterworks Pumping Station—Water Well	225,000.00
Jacksonville	Water System Improvements	Unreported
Miami	Additions to Water Treatment Plant	*555,000.00
Boynton	Improvements to Water Facilities	Unreported
Port St. Joe	Iron Removal Plant	*18,000.00
Hollywood	Extensions to Water Plant	*350,000.00
Dania	Water Facilities	*168,000.00
Pinellas County (Indian Rocks)	Indian Rocks Water Plant Extension	*86,000.00
Chiefland	Waterworks Project	85,000.00
Marineland	Softening Unit Addition	*12,500.00
Sarasota (Lido Beach)	St. Armond Lido Beach Water Facilities	101,671.00
Dania	Water Treatment Facilities	140,000.00
Brewster	Water Dist. System (American Cyanamid Co.)	81,500.00
Palm Beach Shores	Water Distribution System	229,000.00
		\$7,900,035.29

*—13 projects under construction \$1,690,820 estimated cost.

OPERATION

In addition to review and approval of proposed new construction of public water supply improvements with respect to functional design, the activity of the Bureau in the public water supply field continued on sanitary control of the operational phase. Sanitary supervision of operation, however, was confined principally to emergency investigation and corrective action, only a few routine visits to water supply systems being possible during the year under the existing personnel limitations.

Quality of operation of public water supplies was again enhanced by two actions: (1) The excellent five-day program of instruction included in the water and sewage treatment conference and short course held in June, at the University of Florida by its General Extension Division. The Bureau personnel detailed on this work actively functioned in treatment, maintenance and laboratory instruction to the nearly one hundred operators attending.

With the establishment of four regions, each headed by a regional sanitary engineer, and the planning for a fifth such region, more satisfactory coverage regarding public water systems has been effected. Much closer sanitary supervision is still necessary.

Supplementing the Annual Short Course and Conference held in Gainesville during June of each year, the Bureau instituted regional short courses for water and sewage plant operators during the year. The first such regional short course and conference was held in Panama City in September and far exceeded our expectations in enrollment and subjects covered.

WATER SUPPLY WELLS

Following up certain State statutes which place control of all waters of the State of Florida under the jurisdiction of the State Board of Health, this office approved 45 permits for water supply wells during 1947. We suspect that many more public water supply wells were actually drilled without applications being forwarded to this Bureau, but we feel that over-all coverage by permits is improving as well drillers become acquainted with the law.

BOTTLED WATER PLANTS

Operational permits for 24 bottled water plants were issued in 1947. Issuance of these yearly permits is based upon at least annual inspections and approval of bottling facilities by County and/or State Health Department representatives, and a submission of monthly water samples for bacteriological analysis which must meet the Minimum Standards of the U. S. Treasury Department for Drinking Water.

SWIMMING POOLS

Swimming pools are permitted on a permanent basis as long as sanitary regulations are observed. In 1947 this office issued permanent permits to 39 pools, making a grand total of 95 pools permitted throughout the State. Plans and Specifications were approved for the construction of 16 pools and/or bathing areas in 1947.

TABLE XXIII
PLANS AND SPECIFICATIONS APPROVED FOR SWIMMING POOLS—1947

Location	Project	\$ Estimated Cost
Delray Beach	City Pool Improvements	\$ 5,000.00
Orange Park	Bathing Area—Camp Seminole	5,000.00
Miami Beach	Marseille Hotel Swimming Pool	40,000.00
Pahokee	Lions Club, Pahokee Swimming Pool	20,000.00
Miami Beach	Dorchester Hotel Swimming Pool	25,000.00
Palm Beach	Seiden Holding Corporation Pool	60,000.00
Miami Beach	Richmond Hotel Swimming Pool	32,500.00
Melbourne	For: E. B. Narber	10,000.00
Miami	Robert Clay Hotel Swimming Pool	25,000.00
St. Petersburg	Bahama Shore Hotel Swimming Pool	40,000.00
Gainesville	Florida Farm Colony Pool	6,500.00
Surfside (Miami)	Blue Horizon Hotel Pool	25,000.00
Miami Beach	Hotel Maurice Pool	30,000.00
Miami Beach	Cromwell Hotel Pool	30,000.00
Daytona Beach	Y. M. C. A. Pool	40,000.00
Miami	Waverly Apts. (Biscayne Island) Pool	35,000.00
		\$429,000.00

COMMON CARRIER WATER SUPPLY AND WATERING POINT SANITATION

Each year the U. S. Public Health Service circularizes common carrier companies on or about December 1 for list of watering points to be used by them during the next calendar year. About March 1 this list is completed and forwarded to the Bureau of Sanitary Engineering for investigation and recommendation of certification. Continuing the cooperative effort with the U. S. Public Health Service, District Office No. 4, New Orleans, La., in common carrier water supply and watering point sanitation, the Bureau's activity in this feature of its program is reflected concisely in the following tabulation.

TABLE XXIV
COMMON CARRIER WATER SUPPLY AND WATERING POINT INSPECTIONS AND RECOMMENDATIONS FOR CERTIFICATION TO U. S. PUBLIC HEALTH SERVICE

	Number of Inspections Made	Railroad Companies		Air Lines		Vessel Companies	
		Appr'd	Prov.	Appr'd	Prov.	Appr'd	Prov.
Water Supply Examination	68	40	3	8	0	15	2
Watering Point Sanitation	55	30	4	5	0	13	3

WASTES TREATMENT AND DISPOSAL**SEWAGE**

The Bureau closely cooperated with municipal officials and designing engineers on a considerable volume of sewerage planning. This activity resulted in approval of some 32 separate projects having a total estimated cost of \$10,117,600.00. List of cities for which plans were approved is shown in Table XXV. The Bureau was also engaged in many planning and design studies which are still in progress at the end of the year and give promise of a continued high level of plan completion in 1948. It may be appropriate to note that several of the largest projects in the state are in a very active state of development at this time.

Several important projects have been under construction during the year. Probably of greatest statewide interest is the completion of the sewage treatment facilities at the University of Florida. These facilities are very important in the protection of the public water supplies in Alachua County. In addition, the completion of these facilities makes available to the students and faculty of the University plant-scale works of most modern design and uniquely suitable for advanced instruction and research.

Much emphasis has been placed on improving the quality of operation of sewage treatment plants and obtaining compliance with state regulations. Standard operation report forms have been prepared and adopted for general use throughout the state. Members of the Bureau staff visited every treatment plant in the state to advise the operators on treatment problems, and to install and explain the operation reporting policy. Success in this activity is difficult to evaluate at this time due to the small number of adequate treatment facilities and generally poor quality of operating personnel.

STREAM POLLUTION

The report on the St. Johns River Pollution Survey was published in October. The study covered three years of field observations and presented for the first time a picture of the condition of Florida's most important river system. Studies of less extensive scope were made and reported on Rice Creek and Lake

Worth. The Bureau is now making pollution and sanitary surveys of the waters at St. Augustine, Sarasota, and Bradenton; in East Bay in Santa Rosa County; Apalachicola, and the Jacksonville Beaches area. Plans have been made to survey practically all important water areas when funds and personnel are available.

Publication of the Pollution (October) issue of Florida Health Notes stimulated considerable public interest in this problem.

SANITARY DISTRICTS

The Bureau has been active in efforts to obtain a statewide enabling act for the creation of sanitary districts. It is felt that legislation of this type will be of tremendous aid to the State Board of Health and local political subdivisions in setting up sanitary districts. Much study has been given this subject with the view to having a draft of desired legislation prepared for the consideration of the next legislature.

DRAINAGE WELLS

The Bureau has found it necessary to approve a total of 55 applications for drainage wells during 1947. These approved wells were distributed as follows:

Broward County	1	Marion County	1
Dade County	39	Orange County	11
Jackson County	1	Putnam County	2

It will be noted that practically all of the drainage well problems are located in Dade and Orange County. The approvals of wells in these areas were for the most part conditioned on the use of other means of waste disposal when these latter become available. The progress now being made in development of sanitary sewerage systems for Orlando and Miami makes it appear probable that many drainage wells in these critical areas may be closed in time.

INDUSTRIAL WASTE

The problem of industrial waste treatment and disposal becomes more acute each year. During 1947 the Bureau collaborated on the design, construction and operation of 9 industrial waste treatment plants. For the most part these were small plants for treating the waste from laundries and were quite successful although often expensive.

The larger problems being created by mining operations, slaughter houses, and citrus processing received much attention and some progress toward solution may be claimed. However, much remains to be done by the Bureau in collaborative studies with the industries and other state agencies.

TABLE XXV
SEWERAGE PROJECTS APPROVED IN 1947

MUNICIPALITY OR OWNER	PROJECT	Estimated Cost
Holly Hill	Collection System	\$220,000.00
Stuart	Sanitary Sewerage	366,800.00
Jacksonville Beach	Sanitary Sewerage	850,000.00
Coral Gables (Univ. of Miami)	Sewerage; Sewage Treatment	*20,000.00
St. Augustine (School for Deaf and Blind)	Sanitary Sewers	*50,000.00
Milton	Sanitary Sewerage Facilities	*224,800.00
Gainesville (Univ. of Florida)	Sanitary Sewerage	*555,000.00
Sarasota	Sewerage	1,783,300.00
Winter Park	Sanitary Sewerage Improvements	638,000.00
Lake Wales	Sanitary Sewerage Improvements	507,000.00
Holly Hill	Sewage Disposal Plant	80,000.00
Winter Haven (Hospital)	Sewerage	*5,000.00
Jacksonville (Lakewood Garden Apts.)	Sanitary/Storm Sewers	*78,000.00
Atlantic Beach	Sewage Treatment Project	187,800.00
Delray Beach	Sewerage Improvements	850,000.00
Fernandina	Sanitary Sewerage Improvements	600,000.00
Jacksonville (Lakewood)	Sanitary Sewerage Improvements	*45,000.00
Jacksonville Beach	Sewage Treatment Plant	*140,000.00
New Smyrna Beach	Emergency Sewer Repairs	474,000.00
Clermont	Sanitary Sewerage Project	188,000.00
Niceville	Sanitary Sewerage Improvements	213,000.00
Live Oak	Sanitary Sewerage System	183,000.00
Lakeland	Sanitary Sewerage Improvements	*250,000.00
Winter Garden	Sewage Treatment Plant	*70,000.00
Dade City	Sewage Treatment Plant	280,000.00
Miami (Port Authority)	Sewerage Improvements	82,200.00
Dunedin	Sewerage Improvements	306,000.00
Silver Springs	Sewerage Improvements	15,000.00
Winter Garden	Sewage Treatment Plant	*93,000.00
Surfside	Sewerage System	700,000.00
Fort Lauderdale	Sewerage System	75,000.00
Sarasota	Sanitary Sewerage Extensions	17,700.00
	Sewerage System	
		\$10,117,600.00

*-Eleven projects under construction; \$1,530,800.00 estimated cost.

TABLE XXVI
PLANS FOR INDUSTRIAL WASTE TREATMENT APPROVED IN 1947

LOCATION	TYPE OF INDUSTRY	Estimated Cost
North Miami	Laundry	\$ 5,000.00
Jacksonville	Laundry	2,500.00
Miami	Laundry	3,000.00
Opa Locka	Laundry	2,000.00
Orlando	Dairy	11,000.00
Leesburg	Laundry	2,000.00
Rio Vista	Laundry	1,000.00
Mount Dora	Laundry	2,000.00
Duval County (Near Jacksonville)	Chemical Plant	2,000.00
		\$30,500.00

All Completed

SANITARY MILK CONTROL

During 1947 milk control activities became a part of the public health program in the fiftieth organized county health unit in Florida. The milk programs in these fifty counties and city health units practically covered the entire State in sanitary milk control. In 1947, the second post-war year, improvements were made in milk sanitation by producers and distributors, and in control by health department personnel.

City and county unit milk control programs were reviewed and appraised. Complete milk sanitation compliance rating surveys were made in Madison and Pensacola. These two communities made the "Honor Roll" group, having a sanitation compliance rating over 90 per cent. The State level program of serving in advisory and consulting capacity to county and local health departments in matters concerned with adoption, enforcement and interpretation of the recommended milk ordinance and code resulted in over 300 inspections of plant-producers, producer-distributors, and pasteurization plant facilities.

During the year the State Legislature passed Senate Bill No. 656 which had the effect of transferring the authority for making regulations relating to the production and processing of milk from the State Board of Health to the Florida State Department of Agriculture. This law had the effect also of leaving without local regulations about thirty small communities that had been using the State Sanitary Code as their local milk code. The Bureau's program has been, and will continue to be, to urge these communities, with approximately 100,000 in population, to adopt up-to-date local milk ordinances. The Bureau's cooperation with the Department of Agriculture continues on a highly satisfactory level. Joint inspections were made on surveys and on checking of high-temperature short-time pasteurizers.

The state milk sanitarian's technical services were made available to producers in the making of direct microscopic examinations of milk from suspected cows for evidence of mastitis. Seventy-six samples were taken for direct microscopic examination and three abnormal samples found.

Sources of milk and milk products were approved for use on interstate common carriers. Although the volume of products is small, these distributors are eager to maintain their "approved" ratings.

An important new activity of the State Milk Sanitarian was that of being a member and taking part in the activities of the Florida Milk Commission by attending its meetings and open

hearings. This official state commission determines and establishes minimum prices for milk and milk products. In this activity the Bureau has taken an active part.

Increased milk control activities during the year are confirmed by the laboratory reports of samples submitted to the five State laboratories. The results showed an improvement in quality over the 1946 samples. However, there still exists much room for improvement. Over six thousand milk samples were analyzed; of these nearly half were pasteurized milk samples; over twenty-five hundred were wholesale raw milk samples; one thousand were retail raw milk samples. Two-thirds of the pasteurized milk samples submitted were within their bacteriological grade, that is, less than thirty thousand standard plate count. Only forty-seven per cent of the retail raw milk samples were within their bacteriological grade, that is, less than fifty thousand standard plate count. Sixty-four per cent of the samples submitted from plant producers were within their bacteriological grade, that is, less than two hundred thousand standard plate count. Of the pasteurized milk samples submitted only forty-nine showed unsatisfactory pasteurization by the phosphatase tests. This is approximately 1½ per cent of the samples submitted, a noteworthy improvement over 1946, during which year 3½ per cent of the pasteurized milk samples submitted showed unsatisfactory pasteurization.

Milk control activities from the State level were limited because of the shortage of trained and qualified personnel. Only one milk sanitation consultant worked from the State level during the year.

A statistical summary of the activities is given in Table XXVII.

SEAFOOD SANITATION (Shellfish and Crustacea)

OYSTERS

New regulations of the U. S. Pure Food & Drug Administration became effective on January 15, 1947; these regulations control the size, identity, classification and count per gallon of oyster meats as well as the liquid content of the gallon container. During March this Bureau assisted the Administration's inspectors in bringing about compliance. In order to meet the drainage and liquid requirements every interstate plant installed an additional large stainless steel oyster drainage skimmer. By autumn the Administration's inspectors were finding adequate compliance.

At the opening of the oyster season on September 1, the 39 Apalachicola plants were in better physical condition than ever

TABLE XXVII
SANITARY MILK CONTROL — SUMMARY OF ACTIVITIES

Local Milk Control Programs reviewed and appraised.....	49
Milk Sanitation Compliance Rating Surveys.....	4
Communities attaining satisfactory sanitation compliance.....	2
Sources approved for use on common interstate carriers.....	10
Inspections—Plant-Producer Dairies.....	230
Producer-Distributor Dairies.....	10
Pasteurization Plants.....	67
Thermometers checked.....	14
High-Temperature Short-Time Pasteurizers checked.....	3
Alkali Bottle Washing Solutions analyzed.....	2
Milk Samples collected for analyses.....	89
Direct Microscopic Examinations made.....	76
Abnormal milks found by direct microscopic examinations.....	3
Nuisances investigated.....	4
Dairy plans reviewed.....	1
Inspected Proposed Food (Crab Meat) Plant.....	1
Talks given: Training Course for Sanitary Officers (34 attending—Gainesville).....	3
Articles written: "Brucellosis-Undulant Fever" (Health Notes).....	1
Out-of-State Meetings—Rabies Control.....	1
Meetings, Florida Milk Commission.....	15
Meetings, Florida Milk Sanitation Association.....	3
Meetings, Florida Public Health Association.....	1
Meetings, Milk Distributors.....	3

TABLE XXVIII
SANITARY MILK CONTROL

DESCRIPTION	Number	Percentage
Total milk samples analyzed.....	6,637	
Pasteurized milk samples.....	2,991	
Samples satisfactory standard plate count.....	2,006	67%
Unsatisfactory Phosphatase Tests.....	49	2%
Plant-Producer milk samples.....	2,677	
Samples satisfactory standard plate count.....	1,710	64%
Producer-Distributor milk samples.....	1,019	
Samples satisfactory standard plate count.....	486	47%

TABLE XXIX
SEAFOOD PLANTS

DESCRIPTION	Number Certificates Issued	Number Inspections Made	New Plants Constructed
Oyster Shucking and Packing.....	79	450	3
Oyster Shellstock Only.....	6	24	3
Scallop Shucking and Packing.....	4	46	
Clam Shucking and Packing.....	2	6	1
Crabmeat Picking and Packing.....	42	206	3
Lobster Picking and Packing.....		2	
Shrimp Cooking and Packing.....	1	5	

before. Skimmer rooms had been painted in white enamel; plant and equipment were in good condition. However, because of the economic status of the too many small plants, ideal operating conditions in this locality remain yet to be attained.

Hurricanes of September 15 and 23 inflicted severe water damage upon all the Apalachicola plants located on the open beaches. One plant was eliminated. Although discouraged by this heavy loss the operators repaired, remodeled, and gradually resumed business. The bureau gave necessary and constant supervision of this rehabilitation.

CRUSTACEA

The 42 certified crabmeat packing plants endured an adverse business year brought about by a flooded New York market with consequent low market prices. The market condition was caused by the opening of so many new plants during the two post-war years of 1946 and 1947. Through inspections and consultation sanitary standards have been kept up. Two well equipped modern new plants were established, one in St. Augustine and one in Panama City.

SCALLOPS

The mobile scallops showed up only around Panama City this year. The "Red Tide" of the lower west coast might have been a factor in the geographical shift. Ten thousand gallons were packed and frozen.

TABLE XXX
SEAFOOD SANITATION — SUMMARY OF ACTIVITIES

Oyster growing area pollution surveys started.....	4
Oyster growing area water samples taken and analyzed.....	151
Oyster meats specimens analyzed and cultured.....	87
Oyster bootlegging activities investigated.....	4
Typhoid epidemics investigated.....	1
Fish market reconstruction and sanitation.....	6
Lecture on shellfish, crustacea and seafood sanitation made to Sanitary Officers Training Courses, Gainesville.....	4
Shellfish Technical Memorandum compiled for County Health Department Sanitary Officers, Out-of-State agencies requesting copies.....	1
Conventions attended: Florida Public Health Association meeting and National Shellfisheries Association meeting.....	2

WATER IMPOUNDMENTS AND MOSQUITO CONTROL

An increase in the construction of water impoundments for the year was noted, in that nineteen permits for this purpose were issued during 1947 against ten for the previous year. Most of these projects were constructed in Northwest Florida for irrigation or for recreational purposes.

The Bureau policy on the granting of permits of this type remained the same as before with a separate field inspection

required both for the preliminary permit and the subsequent permit for maintenance.

To attain maximum efficiency in the granting of these permits as well as to coordinate the mosquito control program most effectively, issuance of all water impoundment permits is now accomplished directly by the Division of Entomology under Bureau supervision.

TABLE XXXI
MISCELLANEOUS PERMITS ISSUED BY BUREAU OF SANITARY ENGINEERING

Description	Total Under Permit 1946	Total Under Permit 1947	Remarks
Tourist Courts and Trailer Parks	937	1490	Increase is attributable to greater availability of building materials and more acute needs for tourist housing. Permits are permanent rather than seasonal or annual, and are revokable only for cause.
Food Canning and Preserving Plants	138	158	These are also permitted on a permanent basis with revocation only for cause.
Temporary Labor Camps	99**	16**	**Permits seasonal only, July 1 to June 30.

TABLE XXXII
PROJECTS DEVELOPED IN THE BUREAU DRAFTING ROOM—1947

1. Location maps, charts, and graphs to illustrate the St. Johns River Pollution Survey.
2. Sanitary survey map of the Tallahassee area.
3. Sanitary survey map of the Port St. Joe area.
4. A large scale outline map of the State to be used as a key base map for all departments to show location and progress of work.
5. Two completed, colored prints of the above outline map to show all waste treatment works by location, type, and status of operation. These prints mounted on board for wall displays.
6. Two completed, colored prints of State outline map to show all crustacea and seafood activities. These prints mounted on board for wall displays.
7. State transportation map for Rapid Treatment Center.
8. Pollution survey map of the State to show subsurface, stream, and industrially polluted areas for publication in Health Notes.
9. Base map for field use in Lake Worth Pollution Survey.
10. Base map for field use in St. Johns County Pollution Survey.
11. Base map for field use in Jacksonville Beaches Pollution Survey.
12. Twenty-two typical plans of milk houses and dairies showing sanitary features.
13. Twelve typical plans and details of restaurant construction and arrangement showing sanitary features.
14. State map showing all permitted swimming pools.
15. Revisions and new drawings of metal forms for septic tank construction.
16. Working plans for septic tanks to be built of concrete blocks.
17. Reproduction of numerous tracings on the Ozalid Printing Machine for this and other Bureaus.
18. Routine filing of plans and maps of all projects reviewed by the Bureau.

FEDERAL HOUSING ADMINISTRATION (SEWAGE DISPOSAL AND WATER SUPPLY)

During 1947 the working agreement with the Federal Housing Administration continued in effect; the Bureau continued to certify individual sewage disposal and water supply systems serving premises for which the property mortgage is insured by Federal Housing Administration. Briefly, this agreement involves inspection, by local health department personnel primarily, of the systems; also involved is the processing of pertinent documents to see that the sewage disposal and water supply systems meet State Sanitary Code requirements.

An integral part of this feature of the program is investigation into water table elevation, soil texture, and drainage characteristics of areas proposed for housing developments. These items bear upon the suitability of septic tanks with subsurface tile fields as means of sewage disposal.

The following Table XXXIII summarizes this activity in cooperation with local health departments and the Federal Housing Administration.

TABLE XXXIII
FEDERAL HOUSING ADMINISTRATION DEVELOPMENTS

Form No.	Description	No. of Items
FHA-2218.....	Inspection Report & Certification (Sewage Disposal).....	4,836
FHA-2084c.....	Percolation Report (Soil Characteristics & Water Table).....	24
FHA-2217.....	Inspection Report & Certification (Water Supply).....	37

There were 30 less percolation tests (FHA-2084c) than in 1946; subdivision investigations dwindled. There were 20 more FHA-2217's than in 1946; more water facilities for existing or planned subdivisions were actually provided. But there were 4099 more FHA-2218's than in 1946; the nearly six-fold increase was due to greater availability of building supplies and the accompanying enlarged activity in building private homes.

DIVISION OF ENTOMOLOGY

JOHN A. MULRENNAN, Director

This constitutes the initial report from the Division of Entomology, officially organized as of July, this year.

While satisfactory progress was made during 1947 in the many activities carried on by the division, two accomplishments in particular were outstanding. These comprised the passage of legislation to regulate pest control operators, and the establishment at Orlando of a field station for mosquito studies whereby more effective and economical means of control may be developed without undue disturbance to the balance of nature.

The programs of both malaria and typhus control moved forward favorably. The division received from the federal government a sum of \$211,000.00 for malaria control and \$63,000.00 for typhus control. It should also be noted that counties appropriated \$62,102.00 for malaria control, while approximately \$80,000.00 were furnished by Florida cities in sponsoring typhus control.

Malaria death rates continued on a downward trend with seven deaths reported this year as compared to 17 in 1946. The same trend was evident in typhus fever with eight deaths reported as compared to 17 for the previous year. Of recorded cases of typhus fever, 344 occurred in 1947 as compared to 393 cases in 1946.

It is of interest to observe that two cases of spotted fever, one of which was fatal, were recorded in the morbidity reports of the State Board of Health this year. This disease is transmitted by ticks, and, considering the emphasis that is being placed on fire control in woodlands where many species of this arthropod are encountered, it is possible that tick populations may increase and spotted fever cases recur. This division is now, by the use of tick surveys, studying the biology of Florida species in order to become fortified with information whereby control procedures may be worked out to check the spread of this virulent disease.

STRUCTURAL PEST CONTROL

Another milestone along the highway to higher standards of public health in Florida was reached when the Structural Pest Control Act became a law on July 1, 1947. Under this Act, the State Board of Health has been charged with certain duties and legal enforcements, and these are being carried out by the Division of Entomology.

The duties and legal enforcements which the State Board of Health is empowered to perform are as follows:

- (1) To promulgate rules and regulations for each phase of structural pest control. The various phases of structural pest control are classified as (a) general pests, (b) termites, (c) rodents, and (d) commercial fumigation. The rules and regulations are being designed primarily as minimum standards of work.
- (2) To enforce the various sections of the Act, and all rules and regulations thereof.
- (3) To issue an annual State Board of Health business license to each qualified establishment and, in addition, to issue individual identification cards to each person employed by a licensed establishment to do structural pest control work, commercial fumigation and/or to solicit business.

Since each recorded business location of a firm or individual engaged in structural pest control work is required by the Act to procure an annual business license from the State Board of Health, no one may legally perform such work as a business unless properly licensed. Therefore, a state-wide survey was made to determine what firms or individuals were engaged in structural pest control work in order that their qualifications for continued work in this industry could be properly judged before a business license was issued.

Public health has been advanced in Florida as a result of the passage of this Act because of the higher standards of work required. In addition, unsatisfactory work and unreasonable charges by unscrupulous, unqualified pest control operators are being eliminated.

RESIDUAL DDT HOUSE SPRAYING

SUMMARY OF 1947 SPRAY OPERATIONS

The residual spray program for the 1947 season was completed October 21. A total of 68,737 houses received treatment with 5% DDT emulsion during the past season in thirty counties. Approximately 1,500 houses were treated as emergency flood relief work in south Florida along the east coast storm area, where spraying included houses in Vero Beach, Hobe Sound, Stuart, Ft. Lauderdale, Davie and Dania. This flood relief work brought the State total for 1947 to 70,237 homes given protection from the malaria vector.

An average of .9 lbs. of DDT per house was used, with a total of 65,011 lbs. of DDT being applied. The State man-hours per house, including county-paid personnel and CDC county supervision, averaged 1.4 man-hours per house.

Of the 84,485 houses examined, 70,237 were treated. In addition 36,964 privies were sprayed. Assuming an average of 4.5 persons per household, the 1947 residual spray program afforded malaria protection to 328,113 of Florida's citizens.

EVALUATION OF DDT HOUSE SPRAYING

Entomological inspections were made in unscreened houses both before and after spraying with DDT residual house spray. These inspections were made to determine the effectiveness of the spray application on the populations of insects in the sprayed houses. Records were made primarily on *Anopheles quadrimaculatus*, the vector of malaria. Additional records were made of populations of flies, roaches and pest mosquitoes.

TABLE XXXIV
HOUSES RECEIVING RESIDUAL SPRAY, 1947, WITH COST OF LABOR AND DDT PER HOUSE, BY COUNTIES

COUNTY	Total Houses Sprayed	Total Cost to County (Labor)	Average Man-Hours per House*	Average Number lbs. DDT per House	Average Cost to County per House	County Man-hours per House
Alachua	329	\$ 528.00	2.1	.9	\$1.60	2.1
Baker	1,291	1,500.00	1.3	.7	1.16	1.1
Bay	4,123	4,000.00	1.0	1.0	.97	.8
Calhoun	1,456	950.00	1.3	.8	.65	1.1
Charlotte	987	1,300.00	1.4	1.0	1.30	1.1
Citrus	1,658	1,250.00	1.5	.7	.76	1.3
Dixie	1,200	1,229.00	1.8	.9	1.00	1.5
Franklin	1,162	1,290.00	1.8	.8	1.03	1.5
Gilchrist	762	812.00	1.9	.7	1.02	1.5
Glades	743	600.00	1.8	.9	.80	1.3
Gulf	1,387	1,300.00	1.1	.7	.94	.9
Hamilton	2,020	2,022.00	1.7	1.1	1.00	1.4
Hendry	1,572	1,300.00	1.1	.8	.83	.8
Hernando	1,344	1,372.00	1.6	.4	1.04	1.3
Holmes	3,393	3,270.00	1.3	.9	.96	1.1
Jackson	7,120	7,000.00	1.3	1.0	.98	1.1
Jefferson	2,502	2,192.00	1.4	.9	.88	1.0
Lafayette	911	1,042.00	2.0	.9	1.14	1.7
Lake	4,730	3,090.00	1.0	.9	.63	.8
Leon	3,826	3,137.00	1.4	.7	.82	1.3
Liberty	729	800.00	1.7	1.0	1.11	1.4
Madison	3,277	3,333.00	1.6	.9	1.01	1.3
Okaloosa	4,522	3,000.00	1.1	.9	.66	.9
Okeechobee	865	750.00	1.2	.7	.86	.9
Sumter	2,668	1,715.00	1.2	.9	.65	.9
Suwanee	3,191	3,455.00	1.4	.9	1.03	1.2
Taylor	2,571	1,613.00	1.2	.9	.63	1.0
Wakulla	1,727	1,627.00	1.4	.8	.99	1.3
Walton	4,029	4,051.00	1.1	1.0	1.00	.9
Washington	2,646	2,666.00	1.5	1.3	1.00	1.2
Total	68,737	\$62,102.00	1.4	.9	\$.93	1.1

*-This includes the man-hours contributed by the local governments and those contributed by C. D. C.

Anopheles quadrimaculatus: The dosage of 200 mg. of DDT per square foot gave protection to more than 90 per cent of houses sprayed, although a control survey of unsprayed, unscreened houses showed only 62.7 per cent to be infested with the malaria vector at the time of the inspections. All inspection records accumulated during the 1947 season were from houses within one-half mile of natural resting stations showing *quadrimaculatus* densities above 10. This *quadrimaculatus* density was determined by observing outbuildings and other types of resting stations at the same time the houses were inspected.

In records from houses sprayed for the first time in the 1947 season, only 23 per cent as many *quadrimaculatus* were observed alive during afternoon inspections as were recorded from unsprayed, unscreened houses for the same season. In houses where previous applications had been made during the 1946 season and the 1945 season or in the 1946 season alone, only 10 per cent as many *quadrimaculatus* were counted as in unsprayed houses. In houses receiving treatment during 1947, 1946 and 1945, or 1947 and 1946, the highest degree of control was obtained; only four per cent as many *quadrimaculatus* were found alive as in unsprayed houses. This data suggests that a residual effect endures more than twelve months where thorough applications are made.

The influence of natural resting place quad density on the per cent of houses infested with *quadrimaculatus* is shown in data obtained from 817 inspections in sprayed houses and 338 inspections in unsprayed houses. Of houses found to contain living *quadrimaculatus* in afternoon inspections, unsprayed houses were 62.7 per cent quad-positive, sprayed houses only 8.5 per cent quad-positive.

Flies: Densities of flies in sprayed and unsprayed houses were measured by counting the number of flies resting on an area three feet square. The area with the largest number of flies was the area chosen for making the count in each house. The average of these counts was taken to be the index for the sprayed and unsprayed houses. It was found that in unsprayed houses, a fly index of 3.32 was obtained from 368 inspections while in houses which had received residual spray during 1947 the index was only 1.06.

Control of other household pests: Roaches, bedbugs and Triatoma were observed to have been killed by the DDT household spray applications. Residual effects of the applications inhibited development of infestations for a considerable period of time and prevented the rapid increase of the pest populations when accidental reinfestations were acquired.

TYPHUS AND RODENT CONTROL

The Typhus and Rodent control program was conducted on the same basis in 1947 as during the previous year. Projects were operated as an activity of the local Health Department in six counties; namely, Dade, Escambia, Hillsborough, Pinellas, Polk and in the city of Jacksonville, Duval County.

DDT Dusting: Rat runs, rat burrows and other places frequented by rats were dusted with 10% dust in nine cities in five counties. During the year, 51,180 premise dustings were carried out, requiring the use of 152,012 lbs. of dust. The average pounds of dust used per premise was 2.6 for the first six months, and 3.24 during the latter half of the year, making the over-all average, 2.96.

Evaluation: Of 1,250 rats trapped in the undusted areas, 1,020 were captured alive. Of live rats captured, 1,018 were combed. Identification of the ecto-parasites recovered showed the *X. cheopis* index to be 6.16.

Each month blood sera from rats in both the dusted and undusted areas were sent to the Virus Laboratory in Montgomery, Ala., for complement fixation tests. Of the 928 sera submitted from the undusted areas, 311 or 35.18% were found positive for typhus; while only 202 or 12.40% of the 1,719 sent in from the dusted areas were positive.

Rat Proofing: Organized rat proofing programs were operated in the cities of Jacksonville, Pensacola, Tampa, Bartow, and some work was done in Miami the latter part of the year. These activities resulted in the rat proofing of 621 establishments. Breaks in rat proofing were repaired in 196 establishments. Where re-infestation had occurred in these structures, eradication measures were again instituted.

Poisoning Activities: Poisoning activities included the distribution of 15,096 lbs. of bait mixed with various rodenticides in 14,441 establishments. In addition, 2,598 pints of 1080 poisoned water were distributed in 2,214 places, and bait poisoned with 1080 was put out in 725 premises, making a total of 17,350 poisonings with various types of rodenticides.

Trapping and Gassing: Where the occupants of infested establishments objected to the distribution of poisoned bait, resort was made to trapping. This type of control was instituted in approximately 500 establishments. In 107 other instances, the distribution of Cyanogas "A" Dust with a specially designed foot pump was the method employed.

General Inspections: There was 90,261 premise visits made, including contacts relative to rat proofing and poisoning activities, replacement of worn out garbage cans, removal of harborages, answering complaints about rat infestation, and attending to other miscellaneous calls.

Reduction in Typhus Fever: In 1944, 64.25% of the cases reported in the State were from six counties which, in 1945, reported 69.23% of the cases. This influenced the selection of these counties for intensified control measures, as it was believed effort should be concentrated where the problem appeared most serious.

For the State as a whole, there were 344 cases of endemic typhus fever reported in 1947, 393 in 1946; a reduction of 12.47%.

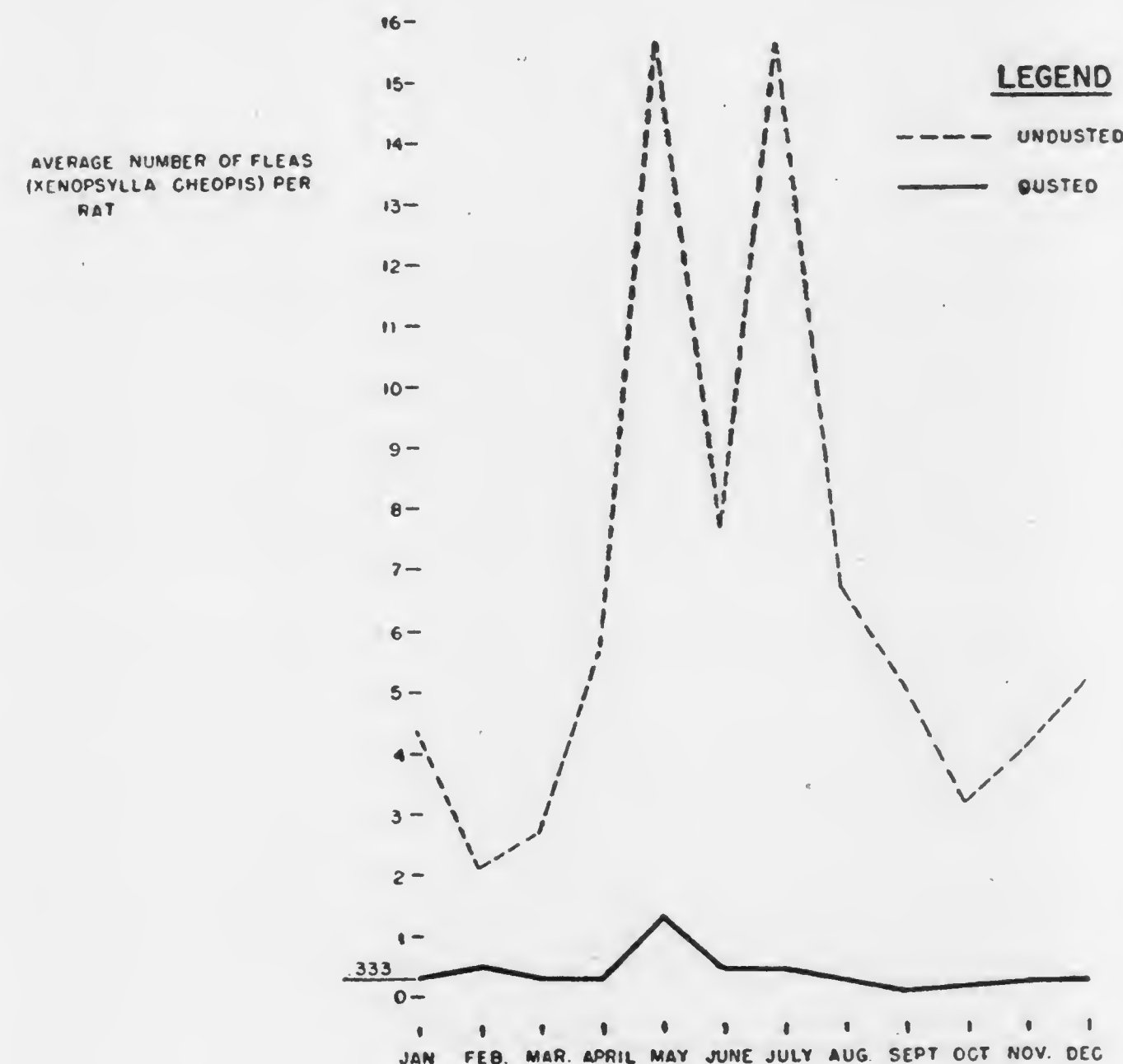


Figure No. 7 Seasonal comparison of *Xenopsylla cheopis* indices on domestic rats before and after application of DDT dust for experimental typhus control (Nine cities in five counties in Florida.)

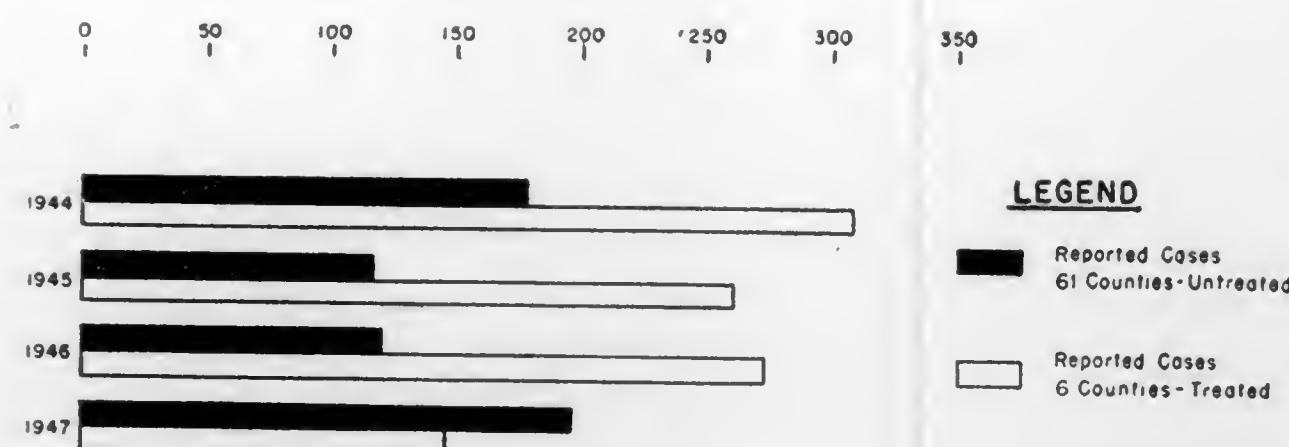


Figure No. 8 Murine typhus fever cases reported - 4 year period - State of Florida.

Educational Work: Educational work has been conducted through newspaper articles, lectures, motion pictures, radios, and the distribution of the booklet, "Roddy the Rat."

A representative of the typhus control section has been assigned with the classes in the Short Course for Sanitarians held in Gainesville. By means of lectures, films, and through field demonstrations, the trainees have been taught the principles of typhus and rodent control.

Financing: Operations were financed through an allotment of \$63,000 from the U. S. Public Health Service, and through contributions from communities in funds and services which amounted to approximately \$80,000.

TABLE XXXV
PRINCIPAL ACTIVITIES—TYPHUS AND RODENT CONTROL—BY PROJECT.
1947

COUNTY	Total No. Visits All Reasons	No. Establishments rat-Proofed	Total No. Premise Dustings	Total lbs. DDT Used	Average lbs. DDT per Premise	1080 Poisoned Water		Poisoned Baits All Kinds	
						No. Premise	Pints Used	No. Premise	Pounds Used
Dade (Miami)	27,722	249	8,505	16,500	1.92	808	1,083	4,688	5,543
Duval (Jacksonville)	20,023	200	10,582	27,880	2.63	1,088	1,088	10,266	9,750
Escambia (Pensacola)	10,537	51	9,153	26,970	2.95	6	8		
Hillsborough (Tampa)	19,375	51	14,118	52,820	3.74	286	391	182	408
Pinellas (Dunedin, Largo, Tarpon Springs, Pass-a-Grille, Pinellas Park)	10,478		8,787	27,772	3.16	1	3		
Polk (Bartow, Winter Haven)	2,126	70	35	70	2.00	25	25		
TOTALS	90,261	621	51,180	152,012	2.97	2,214	2,593	15,136	15,701

Rat Ectoparasites Identified: Ectoparasites combed from 3,009 rats during 1947 totaled 50,512. Of these ectoparasites, 14,631 were combed from 1,991 rats in dusted areas, while 35,881 were combed from 1,018 rats in undusted areas. In comparison with 12,446 fleas combed from 1,018 live rats in the undusted area, only 2,205 fleas were combed from 1,991 rats in the dusted area. A total of 14,651 fleas were determined. From the same 3,009 rats, 16,354 mites, 19,476 lice and 31 ticks were combed and identified as to species.

ANOPHELES ALBIMANUS IN FLORIDA

The Anopheline Survey of the Florida Keys, begun in 1946, was continued January through April, 1947. Collections of *Anopheles albimanus* larvae and adults were made in all four months on Stock Island. No *A. albimanus* were found on Key West.

During the period of May through August, although dipping for mosquito larvae was discontinued, adult *A. albimanus* continued to appear in light traps operating on Stock Island and Cudjoe Key. The U.S.P.H.S. quarantine service personnel collected 34 females from Vaca Key. Two females were taken by Navy Personnel on Boca Chica in July. One female was collected at Fisher's Island, Dade County, by quarantine service personnel during September but no larval specimens of *A. albimanus* were taken. Dipping for anopheline larvae was resumed with negative results. Additional light traps were located from Key West to Homestead.

Females of *A. albimanus* were collected in light traps on Big Pine Key and Matecumbe during October. Larvae were discovered on Big Pine Key in November and December while adults continued to occur in light trap catches on both Big Pine and Matecumbe.

Two specimens of *A. albimanus* were determined by quarantine service personnel from light trap material at Miami Beach in November.

The records of *A. albimanus* collections this year suggest that the species breeds from Key West to Miami in environments to which it is adapted although population densities of this species are low.

SPOTTED FEVER VECTOR SURVEYS

Entomological investigations of two cases of Rocky Mountain spotted fever, one of which was fatal, were made during the year. Two suspected spotted fever cases were also investigated. Special collections of ticks were made in the immediate locality

of each case. Selected specimens of ticks from the locality of two of the four cases were sent to the laboratory of the U. S. Public Health Service at Montgomery, Alabama, to be tested for the presence of spotted fever rickettsia. All tests were negative.

COMPLETED STUDIES AND PAPERS

PUBLISHED

1. Ault, John G. The Operation of the Extended Malarial Control Program in Florida. Report of the Eighteenth Annual Meeting, Florida Anti-Mosquito Association, April 27, 28, 29, 30, St. Petersburg, Florida.
2. Pritchard, A. E., E. L. Seabrook and J. A. Mulrennan. The Mosquitoes of the Florida Keys. The Florida Entomologist, Vol. XXX, Nos. 1 and 2, August 1947.
3. Pritchard, A. E., E. L. Seabrook and M. W. Provost. The Possible Endemicity of *Anopheles albimanus* in Florida. Mosquito News, Vol. 6, Number 4, December, 1946. (Not listed last year).
4. Basham, Ernestine H., J. A. Mulrennan and A. J. Obermuller. The Biology and Distribution of *Megarrhinus Robineau-Desvoidy* in Florida. Mosquito News, Vol. 7, No. 2, June, 1947.
5. Thurman, D. C., Jr., and J. A. Mulrennan. Occurrence of the Brown Dog Tick on Florida Rats. Journal of Economic Entomology, Vol. 40, No. 4, Scientific Notes, August, 1947.
6. Thurman, D. C., Jr., and J. A. Mulrennan. The Occurrence of Sarcoptoid Mites on Rats in Florida. Journal of Economic Entomology, Vol. 40, No. 4, Scientific Notes, August, 1947.

IN PRESS

1. Branch, Nina, and Thurman, D. C., Jr. United States Records of *Typhlodromus mariposus* (Fox) (Acarina, Laelaptidae) from rats in Florida.
2. Thurman, D. C., Jr. A Far South Record of *Anopheles quadrimaculatus* in Florida.
3. Basham, Ernestine *Culex* (*Melanocomion*) *mulrennani*, a new species from Florida.
4. Thurman, D. C., Jr., Nina Branch and J. A. Mulrennan. Description of the male of *Androlaelaps setosus* Fox and the occurrence of this acarid in Florida (Acarina, Laelaptidae)

BUREAU OF LOCAL HEALTH SERVICE

GEORGE A. DAME, M.D., Director

During the year, 1947, the chief activities of the Bureau of Local Health Service, outside of routine administrative duties, were the establishment of county health departments, securing of more adequate local contributions from counties, the employment of a more adequate number of trained public health workers, and the extension of more and better local programs.

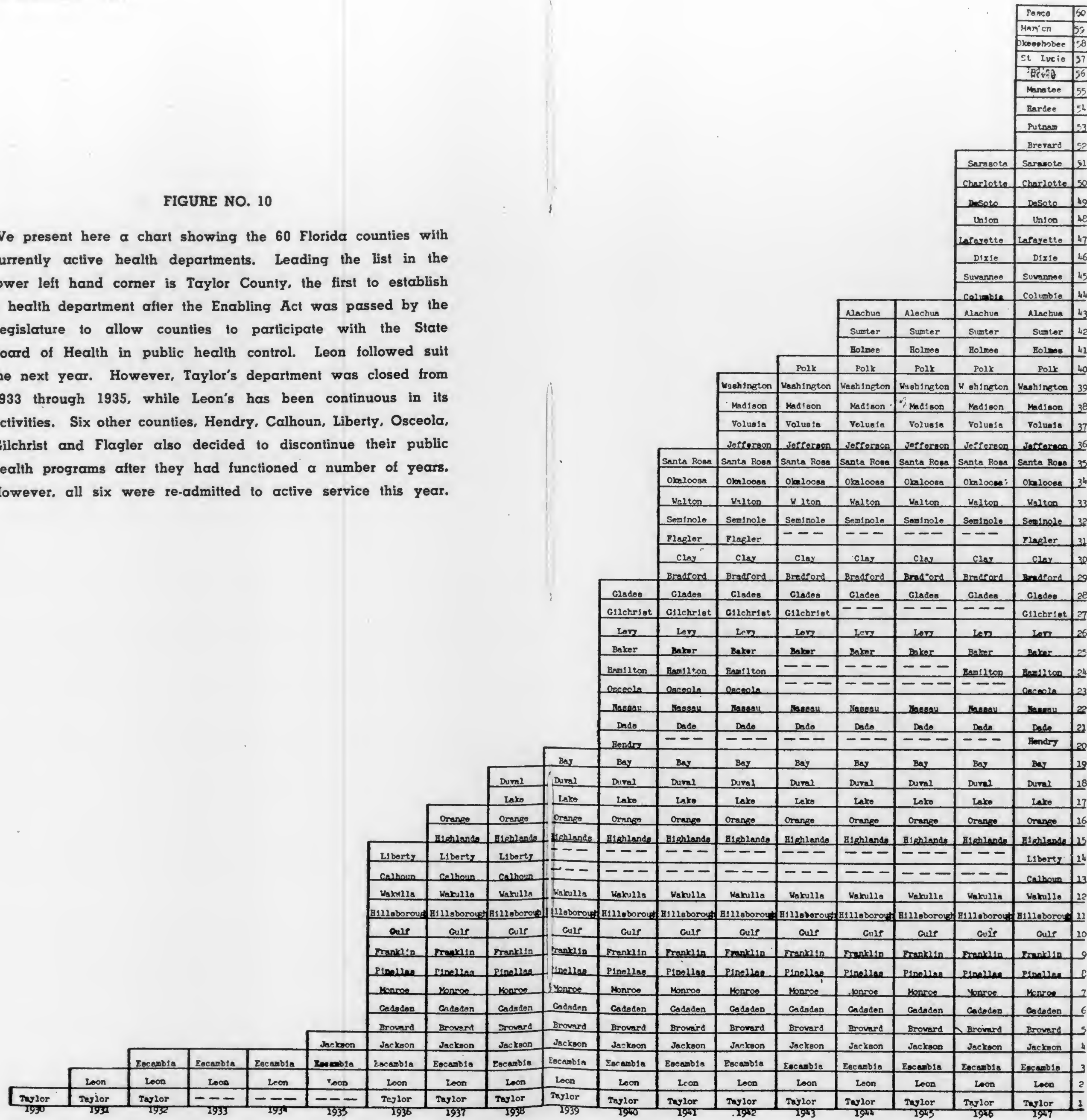
During the latter part of the year, 1946, there were in active operation forty-five organized accredited county health departments, showing an increase of nine over the previous year. At the close of 1947 there were sixty accredited county health departments, an increase of 15 over the previous year. The State will begin the year, 1948, with only seven counties without organized public health facilities. Two of these will be organized not later than March, leaving only five. These five are St. Johns, Lee, Collier, Martin, and Hernando. It is believed that at least three of the five will be organized in October, 1948.

At the close of the year, 1947, organized county health departments were serving a population of 1,863,411. This constituted nearly 83 per cent of the total state population. Areas excluded from these figures were the unorganized counties and the City of Jacksonville. County public health budgets averaged \$1.10 per capita, built up as follows: Contributions from county agencies 64 cents; from the State 37 cents; from federal agencies 9 cents. It should be noted that county contributions increased from 58 cents per capita in 1946 to 64 cents per capita in 1947. It is quite certain that there will again be quite an increase in 1948. The counties that ended the year with contributions of as much as 80 cents per capita were:

Glades	\$1.05	Dixie .....	.85
Okeechobee	1.00	Nassau .....	.85
Flagler	1.00	Hillsborough .....	.84
Baker .....	.95	Volusia .....	.83
Liberty .....	.94	St. Lucie .....	.82
Dade .....	.92	Monroe .....	.82
Gilchrist .....	.87	Leon .....	.81

FIGURE NO. 10

We present here a chart showing the 60 Florida counties with currently active health departments. Leading the list in the lower left hand corner is Taylor County, the first to establish a health department after the Enabling Act was passed by the Legislature to allow counties to participate with the State Board of Health in public health control. Leon followed suit the next year. However, Taylor's department was closed from 1933 through 1935, while Leon's has been continuous in its activities. Six other counties, Hendry, Calhoun, Liberty, Osceola, Gilchrist and Flagler also decided to discontinue their public health programs after they had functioned a number of years. However, all six were re-admitted to active service this year.



It is to be noted in the above list, size of population did not affect the picture to any extent: The counties ranged in population from 2,281 to 315,138. Several other counties almost made the honor roll.

It should be borne in mind that \$1.10 per capita for county budgets does not include \$140,609 of Cancer Funds allocated to counties, nor various other services rendered to the counties by state level agencies. Formula contributions have only been considered.

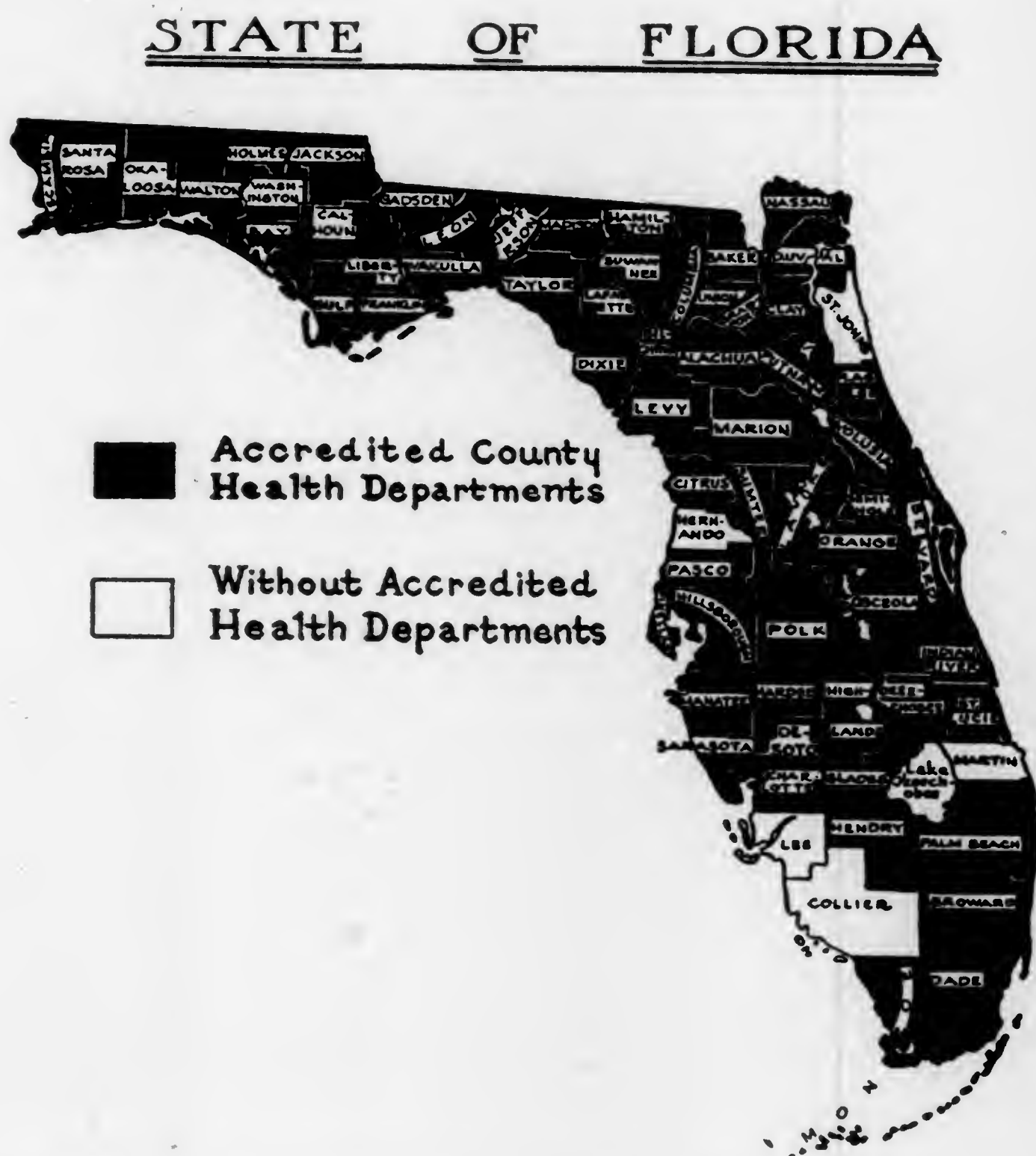


FIGURE No. 9—DISTRIBUTION OF COUNTY HEALTH UNITS IN FLORIDA

TABLE XXXVI—SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1947

ACTIVITIES	LOCAL HEALTH														77
	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Clay	Columbia	Dade	DeSoto	Dixie	Duval	76
COMMUNICABLE DISEASE CONTROL															
Admission to service (A 1)	3	2	124	34	61	112	0	5	31	40	1,322	8	4	54	17
Field visits (A 3-9)	34	102	645	54	74	215	0	10	41	757	1,981	10	4	207	41
Smallpox immunizations (A 15)	810	239	1,226	428	1,888	375	649	240	251	845	8,875	280	116	2,740	25
Diphtheria immunizations (A 16-18)	1,023	345	915	273	779	897	298	41	500	746	5,018	236	51	1,060	20
Typhoid immunizations (A 19)	4,774	987	3,011	118	7	12,947	195	412	786	993	22,683	564	382	2,345	991
VENEREAL DISEASE CONTROL															
Admission to medical service (B 1)	1,126	85	810	195	69	487	86	11	179	162	5,035	75	32	3,545	76
Field visits (B 4)	374	24	1,692	185	240	1,628	12	53	370	175	11,768	187	74	1,237	59
TUBERCULOSIS CONTROL															
Admission to medical service (C 1)	55	72	67	106	31	56	5	0	25	82	2,918	1	20	141	5
Admissions to nursing service (C 2)	421	42	114	71	108	259	10	14	53	149	955	1	21	332	17
Number of persons X-rayed (C 4)	24,488	1,288	9,275	1,022	2,650	331	1,411	29	1,408	3,166	16,840	77	1,079	99	103
Field nursing visits (C 7)	881	55	554	375	142	1,410	13	28	68	280	2,795	20	59	933	226
MATERNITY SERVICE															
Cases admitted to medical service (D 1, 8)	582	58	112	60	168	552	17	2	74	22	2,035	0	12	60	8
Cases admitted to nursing service (D 2, 7, 10)	875	166	97	12	115	743	25	14	92	187	3,155	0	19	307	85
Visits by antepartum cases to med. conf. (D 3)	721	163	224	124	396	933	32	3	164	15	5,486	0	13	37	8
Nursing visits (D 5, 6, 11, 12)	2,033	337	240	191	352	1,543	50	43	216	498	7,505	2	58	892	240
INFANT AND PRESCHOOL HYGIENE															
Individuals admitted to medical service (E 1, 8)	511	239	453	241	334	568	15	7	212	357	2,574	13	0	1,060	26
Individuals admitted to nursing service (E 2, 9)	921	410	170	258	151	1,158	25	22	84	585	3,744	3	34	1,794	217
Visits to medical conference (E 3, 10)	787	449	541	558	712	1,068	18	7	331	364	7,666	13	0	2,654	35
Nursing visits (E 5, 6, 12, 13)	2,330	1,112	232	698	378	2,179	43	53	149	891	12,696	5	69	4,125	890
SCHOOL HYGIENE															
Inspections by physicians or nurses (F 1)	135	1,842	4,468	1,206	1,218	2,466	30	557	2,776	5,469	127,385	803	315	3,142	1,439
Physical examinations (F 2)	1,893	152	4,723	1,023	2,626	1,759	336	338	819	2,971	6,579	588	1,237	2,414	314
Field nursing visits (F 5)	1,020	124	588	313	174	825	18	83	241	46	3,158	40	143	417	429
Dental inspections (F 7)	0	49	3	0	0	0	0	93	0	2,029	7,087	287	1,188	1,054	0
SANITATION SERVICES															
Approved water supplies installed (J 1)	257	5	15	80	7	543	2	5	54	16	41	3	41	305	37
Approved excreta disposal systems installed (J 2, 3)	1,098	103	395	80	243	2,732	34	13	106	71	1,228	138	116	3,397	221
General sanitation field visits (J 4-11)	4,137	875	2,173	286	878	2,751	172	130	473	632	45,250	871	773	7,260	875
Field visits to food handling establishments (K 2)	1,257	561	1,112	495	535	2,079	73	117	818	321	29,751	568	277	12,160	705
Field visits to dairy farms (K 4)	243	19	226	26	108	128	21	1	32	6	1,577	14	35	10	76
Field visits to milk plants (K 6)	170	0	131	16	2	38	1	0	11	5	2,077	8	12	7	1
LABORATORY															
Specimens examined	14,601	965	7,352	3,630	927	6,052	1,959	180	3,328	3,516	108,694	871	1,408	6,894	206,154

TABLE XXXVI—SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1947 (Continued)

ACTIVITIES																							
Hamilton	Hardee	10-1-47	10-1-47	Highlands	Hillsborough	Holmes	Indian River	10-1-47	Jackson	Jefferson	Lafayette	Lake	Leon	Levy	Liberty	Madison	Manatee	10-1-47	Martin	Montroe	Nassau	Okaloosa	10-1-47
COMMUNICABLE DISEASE CONTROL																							
Admission to service (A 1) Field visits (A 2-9) Smallpox immunizations (A 15) Diphtheria immunizations (A 16-18) Typhoid immunizations (A 19)	7	4	0	0	20	1,958	23	1	44	38	22	52	19	16	6	5	8	11	240	53	103	0	
	0	9	0	0	30	6,097	95	1	69	101	28	151	31	74	12	55	10	11	443	90	79	0	
	46	0	1	0	338	4,235	485	15	394	506	262	856	1,513	170	37	552	246	3	369	521	121	0	
	64	0	0	0	67	4,030	612	97	1,803	1,053	141	752	1,125	37	71	110	426	40	1,522	623	88	0	
	274	0	1,086	0	748	200,1015	752	2,462	1,430	791	26	7,319	2,087	168	168	1,527	57	150	1,023	1,443	1,094	1,184	
VENEREAL DISEASE CONTROL																							
Admission to medical service (B 1) Field visits (B 4)	19	6	5	163	2,656	60	10	652	124	23	289	3,258	35	35	3	155	272	68	258	67	35	13	
	72	90	19	96	7,996	47	20	51	164	27	295	1,765	164	17	111	316	336	164	145	54	9		
TUBERCULOSIS CONTROL																							
Admission to medical service (C 1) Admissions to nursing service (C 2) Number of persons X-Rayed (C 4) Field nursing visits (C 7)	0	0	0	0	31	2,913	4	0	11	156	13	1	191	8	6	69	3	11	127	99	0	0	
	37	6	0	0	115	2,485	99	102	113	13	55	236	318	94	20	47	110	48	335	179	68	7	
	33	0	0	0	1,728	28,066	1,597	2,621	276	2,102	580	2,241	617	779	848	3,159	70	0	4,679	2,644	1,111	3	
	50	8	0	0	1,122	3,382	247	33	200	13	50	426	378	143	38	150	155	61	574	376	78	3	
	MATERNITY SERVICE																						
Cases admitted to medical service (D 1, 8) Cases admitted to nursing service (D 2, 7, 10) Visits by antenatal cases to med. conf. (D 3) Nursing visits (D 5, 6, 11, 12)	25	0	0	0	25	1,306	21	0	89	2	7	162	230	53	0	193	1	2	140	44	1	0	
	43	0	0	0	36	2,160	83	10	342	252	30	301	370	72	15	144	55	4	195	251	41	13	
	36	0	0	0	29	2,573	7	0	81	2	7	204	341	175	0	332	1	2	179	158	2	0	
	81	0	0	0	64	5,658	250	16	910	477	87	660	1,199	132	39	243	126	6	770	441	79	21	
	INFANT AND PRESCHOOL HYGIENE																						
Individuals admitted to medical service (E 1, 8) Individuals admitted to nursing service (E 2, 9) Visits to medical conference (E 3, 10) Nursing visits (E 5, 6, 12, 13)	72	0	1	156	3,911	18	1	155	1	29	175	94	3	3	1	127	320	0	181	203	0	0	
	136	0	3	62	5,253	148	23	258	325	75	813	373	46	14	195	65	19	327	398	53	27	0	
	72	0	1	167	8,107	22	1	137	1	42	192	101	1	1	152	561	0	337	597	1	35		
	271	0	6	103	12,088	482	27	389	782	147	1,376	635	53	42	264	100	20	2,406	927	117	1	0	
	SCHOOL HYGIENE																						
Inspections by physicians or nurses (F 1) Physical examinations (F 2) Field nursing visits (F 5) Dental inspections (F 7)	326	158	0	1,709	26,062	2,823	80	785	1,490	416	4,093	2,139	224	614	58	979	744	2,036	5,191	627	19	0	
	1,131	98	0	1,885	10,574	1,323	215	983	594	802	2,129	1,906	633	136	1,131	132	310	324	626	1,792	20	0	
	21	25	0	531	4,004	647	25	301	73	130	326	329	110	29	132	168	15	255	414	1,562	19	0	
	1,323	0	0	0	9,673	178	215	0	0	0	311	363	146	0	96	48	86	415	80	109	19	0	
	SANITATION SERVICES																						
Approved water supplies installed (J 1) Approved excreta disposal systems installed (J 2, 3) General sanitation field visits (J 4-11) Field visits to food handling establishments (K 2) Field visits to dairy farms (K 4) Field visits to milk plants (K 6)	8	0	0	2	4,071	20	0	14	47	1	609	103	32	3	48	56	6	37	3	11	0	0	
	35	25	0	75	3,235	99	0	36	105	42	727	214	177	5	50	325	48	61	171	232	0	0	
	512	153	38	201	39,356	844	52	382	685	188	2,493	1,077	1,602	79	860	1,389	200	1,229	1,729	508	0	0	
	169	179	29	194	14,915	208	21	631	187	61	861	1,540	139	50	1,329	717	295	1,245	898	329	0	0	
	18	2	14	133	2,392	85	4	504	36	33	42	210	6	0	298	106	132	0	24	6	0	0	
0	2	0	68	1,300	0	0	29	10	6	25	108	0	0	0	63	18	11	68	27	3	0	0	
LABORATORY																							
Specimens examined	1,700	117	64	1,442	80,350	3,038	74	3,670	2,066	1,341	4,372	12,968	1,629	1,342	3,311	2,174	1,058	4,679	3,122	2,344	0	0	

TABLE XXXVI—SOME MAJOR ACTIVITIES OF LOCAL HEALTH UNITS DURING 1947 (Continued)

TABLE SHOWING PUBLIC HEALTH ACTIVITIES																					
ACTIVITIES	Orange	Osceola	Pasco	Pinellas	Polk	Putnam	St. Lucie	Santa Rosa	Sarasota	Seminole	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla	Walton	Washington	Unorganized Counties	State Total	
COMMUNICABLE DISEASE CONTROL	907	7	2	128	63	113	0	23	46	473	8	2	35	4	80	45	9	118	13	6,734	
	1,182	15	2	181	196	177	0	31	56	188	9	9	210	5	164	65	11	189	6	14,694	
	1,751	419	0	1,560	1,406	818	0	317	397	230	181	759	174	107	414	320	234	728	10	43,832	
	2,650	328	0	1,442	1,227	410	0	390	764	351	464	829	72	170	282	92	224	636	13	38,333	
	6,853	27	0	360	24	1,351	2,163	1,672	1,234	31	0	1,203	944	456	21	867	608	1,689	170	106,648	
VENEREAL DISEASE CONTROL	617	40	8	866	157	204	4	54	166	288	101	204	24	34	782	43	39	112	0	26,813	
	1,222	84	46	1,018	1,096	139	24	78	302	736	68	682	107	59	739	24	8	87	26	41,033	
TUBERCULOSIS CONTROL	169	39	0	803	77	27	0	44	37	30	7	12	12	0	414	20	0	15	0	10,492	
	793	68	48	1,388	872	73	5	66	137	18	172	48	82	21	414	32	12	18	1	13,465	
	14,069	71	27	1,635	6,462	2,572	2	1,934	204	3,150	902	1,938	2,909	43	847	1,161	1,037	116	54	175,516	
	1,835	178	46	1,100	2,457	117	7	93	488	621	174	50	208	39	1,461	91	49	80	75	26,554	
MATERNITY SERVICE	494	5	4	462	0	3	0	0	53	210	12	7	18	27	154	55	0	45	0	8,753	
	590	12	14	606	121	19	17	31	90	526	33	12	59	19	412	118	20	84	67	14,714	
	972	20	4	1,386	0	4	0	0	65	334	12	7	24	53	328	98	0	58	0	19,118	
	981	33	22	1,606	303	97	40	46	254	1,761	38	19	127	77	1,259	206	44	246	124	35,969	
INFANT AND PRESCHOOL HYGIENE	1,889	98	0	1,268	372	18	0	0	243	424	123	21	7	68	746	115	6	229	0	18,754	
	2,064	92	81	900	292	34	19	43	92	704	44	15	49	19	1,046	434	4	168	72	27,671	
	2,806	207	0	2,885	372	44	0	0	255	770	150	94	17	811	1,062	312	21	324	0	37,305	
	2,718	192	22	4,887	705	144	28	79	270	3,802	78	49	109	36	3,125	811	18	626	124	68,575	
SCHOOL HYGIENE	4,379	902	135	9,786	4,993	803	0	1,358	1,847	6,359	435	0	47	2,672	6,179	1,078	42	1,438	51	264,959	
	8,002	1,302	91	3,778	4,407	3,359	0	1,131	528	1,997	593	1,552	804	681	4,670	624	1,061	1,000	97	0	97,011
	1,841	115	84	2,236	119	239	11	301	594	1,178	102	53	43	105	1,077	120	276	240	9	30,174	
	7,883	0	0	1,237	0	617	0	0	463	1,998	0	300	23	140	4,889	0	0	80	0	43,967	
SANITATION SERVICES	325	11	0	6	894	1	0	20	325	164	14	74	39	7	766	0	58	113	7	10,926	
	1,072	342	0	175	742	13	0	99	623	345	55	86	257	14	859	11	432	210	126	22,306	
	4,271	877	58	3,107	2,307	319	0	428	2,430	1,997	821	565	2,482	633	3,043	1,746	1,827	972	1,162	168,070	
	1,900	1,097	11	404	2,599	188	0	661	595	724	174	936	253	101	5,968	121	228	408	299	84,000	
	18	130	0	4	188	105	0	55	133	11	33	252	56	23	465	2	50	203	6	9,306	
LABORATORY	7	71	0	1	80	39	0	2	61	14	0	10	4	0	326	0	6	16	1	5,462	
Specimens examined	7,182	542	332	8,700	10,224	1,436	0	2,063	1,647	2,819	2,703	1,192	1,418	2,207	9,901	1,370	2,109	2,296	230	445,444	

DIVISION OF PUBLIC HEALTH NURSING

RUTH E. METTINGER, R.N., Director

Much has been said about the shortage of nurses, but it has been revealed there is a larger number of nurses than ever before. However, there is a greater demand for nursing service making it impossible to serve all who need it. The expansion of Public Health in Florida, naturally, has made vacancies which have been and are being filled more rapidly than anticipated. At the end of the year 1947 there were no counties that did not have some type of nursing service in public health activities. As of January 1, 1948, there was a total of 329 public health nurses which included all agencies.

The need for co-ordination has been stressed to prevent overlapping of visits, for economical reasons and a continuity of service.

The Nursing Division serves every bureau and division of the State Board of Health. Therefore, it has endeavored to arrange for distribution in accordance with need of nursing assistance to formulate plans and policies, and to insure an effective program.

Progress in the educational field has continued by sending 12 county health unit staff nurses to Gainesville for the two months' in-service orientation program. These nurses had no training or experience in the field of public health. In addition to the generalized program in which they were given theory and experience, the Red Cross nursing service gave the accelerated home nursing course by sending an instructor from the southeastern division to Gainesville who remained a month to observe the classes which these nurses taught following this week of intensive training. These classes were taught to groups of women in the rural areas organized by the local Red Cross Chapter. The course consisted of improvising in the home and teaching simple emergencies and treatments when nursing services cannot be secured, and also to give a better understanding of the Public Health Nursing program to the communities.

Through scholarships granted by the State Board of Health five nurses were given the basic Public Health Nursing course at universities offering the approved course in public health nursing.

Scholarships in pediatric nursing were given to four nurses employed in institutions with the understanding that they would return to their present positions which would enable them to give more valuable service to the hospitals in which they are employed. During this course field experience was given to the nurses which gave them a better understanding of the close relationship in the field of Public Health Nursing and the hospitals.

Further education has been stressed and nurses encouraged to take advantage of the G.I. bill of rights. As a result approximately eleven nurses will complete their public health course in June 1948.

Arrangement and direction of in-service training for nurses was carried on through an institute sponsored jointly by the State League of Nursing Education, the State Nurses' Association, and the Division of Public Health Nursing which included the hospital group as well as the public health nurses. This was conducted by a representative of the U. S. Public Health Service who gave a series of four institutes, two days each, in strategic points in the state. The subject was "The Social and Health Concept of Nursing in the Basic Curriculum." These institutes pointed out the value in the preparation of the nurses who will have an understanding of the patient as a person, and who will be as versatile in health nursing as in sick nursing. This stimulated interest in several hospitals to affiliate in the field of public health nursing.

Two State Supervisors' meetings were held, one in Gainesville and one in Daytona Beach. Discussions brought out the need for district meetings and having demonstrations in the various phases of public health.

Five of the county health units have accepted 25 graduate students from the Peabody College, Vanderbilt University, and the University of North Carolina for field experience. These units were visited by the representatives from the universities to determine if they will secure the needed experience in relation to the felt needs of the students.

It was the privilege of the Director of Public Health Nursing to attend the Eighth Annual Conference of the Field and Resident Faculty of Public Health Nursing Division held at the George Peabody College for Teachers. The theme for the conference was "Making the Curriculum in Public Health Nursing Effective Through Group Planning." The discussion made paramount the joint responsibility of the agencies for providing field experience if public health nursing is to go forward.

Upon invitation by the Maternity Center Association of New

York, one of the consultants attended and participated in a three weeks' work conference. Following this, premature institutes were conducted in the majority of the county health units, as well as the hospitals in giving the newer methods in maternal and child health.

The special school project established for the examination of school children in the counties was a means of helping the nurses in many counties to work more closely with the teachers. A state nursing consultant prepared in Health Education was employed on a temporary basis to assist the nurses with the screening of children, as well as following through these cases needing correction of defects.

The Nursing Division with approval of the county health officer and the director of Maternal and Child Health has continued to license midwives. There are 561 midwives in the state. Upon recommendations of the county health officers 22 honorable discharges were given to midwives due to their physical disability to carry on the work as well as becoming aged.

We were indeed sorry to lose the white midwife consultant who retired July 1. She worked diligently in bringing up the standards of the midwives and investigating those who were

TABLE XXXVIII
NUMBER OF NURSES EMPLOYED FOR PUBLIC HEALTH WORK IN THE
STATE OF FLORIDA, JANUARY 1, 1947

	Agencies	Nurses Employed	
		Supervisors	Staff
State Health Department	1	5	
Other State Agencies	1	1	6
Departments of Health	RURAL	42	9
	URBAN	17	13
Boards of Education	RURAL	7	
	URBAN	3	
Other Official Agencies	RURAL	2	
	URBAN	7	1
Non-Official Agencies	RURAL	3	
	URBAN	12	3
Schools of Nursing	1	1	
TOTAL	96	33	296

practicing illegitimately. Her retirement has necessitated placing most of the responsibility upon the county health units. The other nurse certified midwife has concentrated more on institutes, supervising more closely deliveries and home visits.

Consultation service has been given to every county to guide local health units in planning their nursing program, executing the program, observing the field and clinic procedures, and an evaluation of performance through a review of periodic reports.

The following table depicts the number of nurses employed for public health work in different agencies in 1947.

DIVISION OF DENTAL HEALTH

GEORGE A. DAME, M.D., Acting Director

As the services of a competent dentist could not be secured to fill the position of director of the Division of Dental Health during the year 1947, the director of Local Health Services acted in that capacity. Lack of other personnel prevented anticipated expansion of the program as planned; however, as will be seen by studying the statistics given, much worth while dental service was rendered by the Division's only dentist. In addition, the county health departments conducting dental programs accomplished a commendable amount of work. Of necessity, only a very small number of part-time clinics were operated.

It is now believed that satisfactory expansion of the dental program can be made during the year of 1948. Beginning early in 1948, the Division will be directed by an able doctor of dental surgery. It is believed that one or two other dentists may be secured for service in the field. There should, therefore, be a considerable expansion in service during the coming year. In 1947, the mobile unit, under the operation of Dr. John E. Urich, served fourteen counties. It is believed that probably double this number can be served in 1948. A reference to Table XL under the heading, "State Dentomobile Demonstration Clinics," will show that a very considerable amount of work was accomplished by one dentist.

TABLE XXVIII
PART-TIME DENTAL SERVICES IN COUNTIES

Mos.	Counties & No. Dentists Participating	Maternal	Pre-school	School	Total	Treatments	Extractions	Fillings			Prophylaxis
								Ama.	Sil.	Cem.	
1	Bay	1	..	6	6	..	6	..	..	6	3
4	Duval	1	..	22	22	9	13	22	3	10	14
3	Franklin	1	..	8	9	5	7	17	..	12	1
5	Hillsborough	1	10	56	66	6	90	2	2	..	1
1	Lake	1	..	4	4	..	3	..	..	1	3
4	Monroe	1	..	20	20	9	18	31	..	11	3

TABLE XXXIX
FULL-TIME COUNTY HEALTH DEPARTMENT CLINICS

	Dade 5 mos.	Duval 11 mos.	Hills- borough 8 mos.	Pin- ellas 6 mos.	Totals 30 mos.
Patients, new	155	892	772	683	2,502
" repeat	208	1,699	506	801	3,214
Inspections	3,342	917	9,939	1,112	15,310
Prophylaxis	14	247	85	163	509
Corrections:					
Fillings — (Deciduous & Permanent)					
Amalgam	277	805	274	774	2,130
Cement	111	580	41	663	1,395
Silicate	37	30	85	37	189
Extractions — (Deciduous & Permanent)	134	610	883	326	1,953
Treatments	94	424	184	417	1,119
X-rays	..	72	..	..	72
Miscellaneous	12	550	..	..	562
Total Corrections	665	2,999	1,539	2,217	7,420
Health Education:					
Chair instruction	10	47	421	..	478
No. Pieces Literature given out	555	195	781	..	1,561
No. talks and attendance	..	1/25	..	..	1/25
No. movies shown and attendance	..	9/1700	..	..	9/1700

TABLE XL
STATE DENTOMOBILE DEMONSTRATION CLINICS

	School	Total
Patients, new	2,695	2,695
" repeat	1,058	1,058
Inspections	2,703	2,703
Prophylaxis	2,741	2,741
Corrections:		
Fillings — (Deciduous & Permanent)		
Amalgam	2,110	2,110
Cement	425	425
Silicate	18	18
Extractions (Deciduous & Permanent)	921	921
Treatments	1,429	1,429
X-rays	..	..
Miscellaneous	6,801	6,801
Total Corrections	11,704	11,704
Health Education:		
Chair instruction	3,663	3,663
No. Pieces Literature given out	6,865	6,865
Classroom talks and attendance	107/4200	107/4200
Talks—other	1/50	1/50

BUREAU OF MATERNAL AND CHILD HEALTH

T. PAUL HANEY, M.D., Dr.P.H., Director

In addition to those services which have been established and expanded throughout the years since the Bureau of Maternal and Child Health was set up, special emphases during the past year have been on services to mothers and infants in the migrant labor areas, to premature infants and to school children.

Because of the liquidation in July 1947, of the Labor Branch Program of the Department of Agriculture, which included the operation of the Migratory Labor Health Association, a plan was worked out whereby MCH funds were made available for hospital and public health services to mothers and children in the area to be served by the Western Palm Beach County Public Hospital, known as the Belle Glade Hospital. This area was in especially great need of such a program because of the high percentage of indigency brought about from the influx of migratory labor beyond the ability of local facilities to take care of them. A combination of hospital services, medical and dental care services and complete public health services was made available to mothers and children, more especially in the western area of Palm Beach County, but hospital and medical care services were also available to similar patients residing anywhere in Florida if the request for such services was made by a county health officer within the State of Florida. The personnel to be employed included a full-time obstetrician, an obstetrical nurse supervisor and a part-time pediatrician, but by the end of the year not all of the positions had been filled although the indications were that they soon would be.

A number of premature infant incubators have been purchased and placed at strategic points throughout the State to better insure the specialized care needed by immature infants. Plans were initiated to provide heated carriers for transporting infants to hospitals when birth occurs at home or in a hospital where incubator facilities are not available.

The Special School Health Services Program was carried out with the cooperation of the State Department of Educa-

tion and began in January when 31 recent medical graduates came into the State and worked in 42 county health units to do physical examinations and immunizations. The staff also included a nurse consultant and a supervising pediatrician. Children with remediable defects were referred to their family physicians and in cases where such service was not available, local resources were used. Thousands of school children were examined who otherwise would not have had this service due to the lack of personnel and the large areas to be covered by some health officers.

The director also worked with the State Department of Education in establishing the use of health educators in Florida, primarily in an effort to improve school health services. The objectives were (1) to increase the number of corrections of physical defects found in school children, (2) to improve the health habits of school children, (3) to give greater assurance of immunization against diseases for which immunizations are available before the child enters school by better educational procedures with parents and teachers, (4) to insure more complete cooperation between health department officials and workers and the Department of Education authorities and personnel, (5) to expand facilities for improving the educational program particularly among all types of food handlers and other adult members of the business in general, and (6) to improve public relations between the health department and the public in an effort to have the general public more appreciative of public health activities and thus more willing to lend active and financial support to them. Audiometers for use in testing the hearing of school children were purchased.

Scholarships at the Southern Pediatric Seminar in Saluda, North Carolina, were provided for four local health officers in July.

Lecturers for the Postgraduate Medical Assembly, which is an annual course held in Jacksonville by the Florida Medical Association, were furnished with funds from this bureau.

Participation in the Mothers' Milk Bank in Duval County which has now become an established service was through the provision of funds for travel and salary of the nurse director.

Hospitalization and consultation were provided at the Florida A & M College Hospital for abnormal maternity cases in the Leon County area.

Liquidation of the Emergency Maternity and Infant Care Program began on July 1st when Congress, through the U. S. Children's Bureau, issued the regulation that only women who were eligible as of June 30, 1947, would be entitled to the benefits

of the program if the husband was in one of the four lowest pay grades of the Armed Services at sometime during the pregnancy. This means that maternity cases which deliver early in April of 1948 will be paid for and infants of the women who were authorized for care will be eligible for medical, hospital and nursing care and well-baby supervision until they are one year old. This will carry the program on through April 1949, or until such a time as all authorizations made have been paid for or canceled.

Nutrition services have been provided in the form of staff education for many of the county health departments, and community education for the communities they serve. Talks, illustrated with slides, food, and other illustrative materials have been made for community groups, such as P.-T.A., church groups and local public health committees. Conferences for community leaders have been held to help plan community nutrition activities and to help set up exhibits for county fairs and the like. Nutrition services have been provided to maternity patients, both directly, when the nutritionist has participated in prenatal clinics, and indirectly, when the public health nurses have continued the type of nutritional advice. Food classes have been held for midwives to demonstrate proper food for antepartum and postpartum patients. Nutrition materials for maternity patients, public health nurses and midwives have been distributed through this bureau. Advice on special problems of infant feeding and other special dietary problems has been given on request. Consultation services in nutrition have been given to a number of child caring institutions and convalescent homes. This has been done at the request of and in cooperation with the Child Welfare Division of the State Welfare Board. Services have included studies of food purchasing, assistance in menu planning and staff education for the institution staff. Materials on quantity food service have been distributed from time to time.

During the year the department was enlarged to include the newly established Mental Health Program and a separate report is being submitted by the director of that activity.

Talks were made by the director before the State Department of Education on school health services and before other interested groups on subjects relating to maternal and child health.

MENTAL HEALTH PROGRAM

LOWELL S. SELLING, M.D., Director

The Mental Health Program was authorized by the United States Public Health Service for July 1, 1947. A director was appointed to begin work the first of September of that year. Some beginning has been made in setting up both an educational plan and community clinics. The educational plan takes three forms: (1) education of individuals in the community. This has, for the time being, been delegated to the General Extension Division of the University of Florida which is sending out literature and a worker. (2) Speeches are being made for various agencies which are enumerated below and, (3) several State-wide educational conferences are projected for the coming year. The activities of the various communities are as follows:

Jacksonville. The director addressed the Council of Social Agencies, several "Dads' Clubs," Parent-Teacher Associations and the Florida Social Workers' Association, with the result that some activity along the line of a Mental Hygiene Society is to be expected early in 1948.

Orlando. Here, the director addressed the health committee of the Council of Social Agencies and the Community Planning Organization, the judges of the various courts, as well as the Central Florida Conference of Social Workers, with the probable result that early in 1948 there will be a Mental Hygiene Society for Central Florida. Here a clinic is projected to function early in 1948 under the executive direction of Dr. Leland H. Dame, health officer of Orange County. By the close of 1947, arrangements had already been made for Dr. James H. Russell, professor of psychology at Rollins College, to serve part-time as clinical psychologist for the clinic in Orlando. Arrangements were being made with the Orange County School Board to pay for the services of a psychiatric social worker for the clinic. Cases were awaiting examination by this clinic as soon as it was ready to start and were referred both by the school system and Juvenile Court.

Tallahassee. A clinic under the auspices of the Leon County Health Unit is staffed by students of the University. Faculty supervision is used to keep the performance of these students at a high level so that the community feels that it is being served rather than being used as a guinea pig. That organization was set up by the end of 1947, its activities will be in use early in 1948. Through this clinic it is hoped that not only the problems

of mental health of the community will be taken care of, but also that students will be trained in social work and clinical psychology to a level where they will be of use in any expanding mental health program throughout the State.

Miami. Only one clinic was functioning by the end of 1947 on the State's clinical program and that one is in Dade County. Dr. T. E. Cato and the Mental Hygiene Society of Southeast Florida early requested services of a Mental Health consultant to set up such a clinic and to provide supplementary funds for it. The School Commissioners of Dade County supply the funds to pay the social worker and provide space for the unit. This is a half-time clinic manned by a psychiatrist, a half-time psychologist (supplied by the University of Miami) and a full-time social worker. In addition there is a clinic manager who also acts as a secretary and play-room worker. The clinic began to see cases in December of 1947.

Tampa. In spite of the fact that Dr. Frank Chappell was the first to request a mental health clinic for Hillsborough County, there have been some very great difficulties in setting one up. The first is the lack of trained personnel to be used part-time in the clinic. The psychiatrists in the Tampa area are unable to devote any time to a clinic much as they would like to. There is no available qualified psychologist, and at the time of this writing a social worker has been located but not yet interviewed. The need for the clinic in this particular area is as great as it is in the other areas mentioned above, and it is hoped that one will be started soon.

St. Petersburg. Here there is already a Child Guidance Clinic headed by Dr. Paul Penningroth and Dr. T. Paul Haney, the health officer, plans to devise means to integrate this clinic with the mental hygiene services which the Pinellas County Health Unit is planning to offer.

The training program for personnel within the State has been initiated by sending one student to the department of social work at Florida State University. It is to be hoped that more social-work and psychology students will be sent there, so that this will not only become an accredited college in these fields, but also that the dearth of trained social-work personnel and trained clinical psychologists will be rectified.

It is expected that the projected training program for the Doctor of Philosophy degree in clinical psychology at the University of Florida in Gainesville will be useful in setting up a training program and some service in Alachua County. The Mental Health Program is also integrated with the State Conference of Social Workers.

HEALTH INFORMATION

RUTH STUART ALLEN, Acting Director

This Division continued to use the media of the press, photography, literature, films, radio transcriptions, the Library, and health educators, in order to inform the public of the activities of the Florida State Board of Health and generally educate the public concerning health. This Division is a clearing house for information as many requests are directed to it from all sections of the State Board of Health, the county health units, as well as civic groups and individuals.

One of the major activities, not noted below, is the publishing of HEALTH NOTES each month. This is an attractive booklet averaging twenty pages upon some specific subject. Copies of HEALTH NOTES reach approximately eleven thousand people each month.

PRESS SECTION

Newspaper coverage of Florida's public health program hit an all-time high last year, judging from the large number of articles received each week from a clipping service.

This coverage included articles and pictures on practically all phases of public health, such as: foodhandling schools, school health programs, immunization, venereal disease, sanitation, x-raying for tuberculosis, etc. All new key personnel were introduced immediately through the medium of the press.

These articles were prepared not only to meet the needs of the State Board of Health proper, but also pointed up problems of county health units, collectively and individually.

Articles were prepared for weekly release to all Florida news services; spot news stories and pictures were released locally, (Jacksonville) and a number of items were sent to national publications.

The division also handled publicity for the Florida Public Health Association, Anti-Mosquito Association and Southeastern Cancer Seminar.

ART WORK

Posters—51; Signs and letterheads—35; Cartoons, illustrations, book cover designs—33; Charts and graphs—19; Maps—12; State-wide exhibits—4.

Among the most successful projects have been a sequence of twenty-two Tuberculosis posters for state-wide educational purposes; wall charts and posters for laboratory classes and diabetic classes; and postage meter machine ads.

THE LIBRARY

LORA-FRANCES DAVIS, Librarian

The Library's services continue to expand. Circulation figures show the trend of the past three years:

Date	Books	Periodicals	Pamphlets and Reprints	Total
1945	846	647	514	2007
1946	908	682	520	2110
1947	1229	1920	1011	4160

Major efforts were made to increase circulation by: (1) requesting each Department and Bureau head to check a list of journals received for those he wished routed to him regularly; (2) sending each new county health officer a list of journals received and a booklet showing materials of interest to health departments; (3) sending a list of books on nursing to county health departments and to accredited nursing schools; (4) distributing book lists at teachers institutes and workshops; (5) designing a booklet of late and standard titles in the medical field for the practicing physician.

There are 247 regular borrowers.

Reference, our largest service, is difficult to calculate. A total of 2,626 inquiries were made, personally and by mail. This includes bibliographical service whereby the Library aided in speeches made at national meetings. Extra space and shelving has been acquired. Attic space provided a cataloging room and an opportunity for restoring our good name in the Medical Library Exchange from which we had received gratis many journals without having contributed and from which the Library was in danger of being dropped. Through this medium 110 packages of surplus journals were sent to different parts of the world.

We received gifts from Riverside Hospital, Jacksonville; from Dr. Mark F. Boyd; the U. S. Navy; 74 journal subscriptions from the Florida Medical Association and from individuals such as Dr. L. Y. Dyrenforth and Dr. Lowell Selling.

Lacking a lecture or assembly room, the Library is often turned into a classroom or meeting place.

The Librarian was requested on several occasions to address various organizations on the Library's services.

Probably the major single project for the year was the handling of the legislation information service. Daily lists of bills introduced in the Florida legislature were received along with comments on the progress of said bills. These were care-

fully read and all interested personnel informed. At the close of the session, county health officers and bureau and division heads were sent a memorandum stating the final action taken on bills of interest.

An order has been placed for the binding of 1,399 journals, this work to be completed within the next two years. This will help to preserve our valuable material. We have also been able to fill in real gaps in our collection of materials on laboratory technics, industrial medicine, electrocardiography, etc. Purchases have been made especially for the physicians studying for the examinations of the Basic Science Board and the State Board of Medical Examiners.

Thanks are due to the Army Medical Library and to the Jacksonville Public Library without which our Library would have been unable to meet the needs of its borrowers.

FILM LIBRARY

During the year the library shipped 1,289 films, which were shown 6,439 times to an estimated audience of 613,107. The above figures apply to 16mm. films only. There were also 16 sound strip films shipped which were shown 56 times to approximately 4,214 people.

During 1947 there was a substantial increase in circulation of the Film Library. This increase, we feel, was due in part to promotion work carried on among local schools during the early part of the year. The increase was due also to the constantly increasing and widespread use of films in education.

In addition to the above, the film library cooperated closely with the Bureau of Tuberculosis in the ordering, scheduling and distributing of forty-one 35mm. x-ray trailers and schedules which were used in theatres throughout the state to announce dates of the Mobile X-ray Unit's appearance.

There were 47 new films added to the library during the year, and a sizeable amount of new equipment including projectors, screens, etc.

Plans for the future include the inauguration of a new system of obtaining film reports, and doubling the number of film prints of our library as we are now unable to fill more than 50% of requests received. Also, it is our hope that we shall be able to re-distribute existing projection equipment on loan to various county units in an effort to place this equipment in locations where it will receive maximum usage.

LITERATURE

Sent out approximately 10,000 pamphlets, posters and general information on health which included the subjects of tuberculosis,

venereal disease, maternal and child health, etc., and individual requests for HEALTH NOTES and ANNUAL REPORTS.

RADIO TRANSCRIPTIONS

Sent out approximately 491 transcriptions (prepared locally) to the different radio stations over the state. These transcriptions covered approximately 30 subjects and were informal and casual in nature while based on sound public health precepts.

FOOD HANDLERS' SCHOOL

E. RUSSELL JACKSON, Health Educator

The Coordinated Food Handlers' School Program became a reality in the fall of 1947 with schools conducted in Deland, Sanford, Perry, and a Workshop for operators at Florida State University, Tallahassee. These schools are presented in various localities under the sponsorship of the Florida State Board of Health, the Florida Restaurant Association, and the State Hotel Commission, and are offered to local operators and food handlers through the local county health departments. Curriculum consists of six hours devoted to basic facts concerning sanitation, personal hygiene, etc. It is the hope of this Division that the larger cities in the State will establish their own schools during the coming year, and that several Mobile Units will assist smaller localities for the time being.

MISCELLANEOUS

Plans were made to sponsor a joint School Health Project under the supervision of the Marion County Health Department and the Health and Safety Division of the Department of Education. A rounded program with special emphasis upon the detection and correction of hearing and visual defects is planned.

Special objectives of this Division for the coming year include a Negro health educator; a new postage meter ad each month; an educational "blotter" service for physicians and the preparation of professional exhibits to be used at state fairs and expositions throughout the state.

The Director of this Division, Mr. Robert G. Carter, is still on loan to the State Improvement Commission as Supervisor of the Hospital Planning Division. Mrs. Ruth Stuart Allen, Acting Director, resigned December 31, 1947. Miss Elizabeth Reed, R. N., was appointed the new Acting Director.

BUREAU OF LABORATORIES

ALBERT V. HARDY, M.D., Dr.P.H., Director

DIAGNOSTIC EXAMINATIONS

The numbers, types and results of diagnostic examinations performed in the State Board of Health, Bureau of Laboratories, are shown in Tables XLI, XLII, and XLIII. The tabulated data indicates an increase of 18.7 per cent in tests performed. This fails to indicate fully the increase in volume of work. The examinations for *C. diphtheriae* during 1945-1947 are shown in Table XLIV. There has been a decrease in the number of specimens received, but in the past two years there was a marked increase in the number of positive observations. This is related largely to modifications of the methods of examination. During 1945 the test was limited to a microscopic examination of a smear prepared from the growth on a Loeffler's slant. Two additional procedures were gradually introduced. At present in the central laboratory each specimen is inoculated on both a Loeffler's slant and a tellurite plate. For confirmatory purposes on positive specimens, the organisms are isolated in pure culture (if possible) and examined biochemically in appropriate sugars. This has increased the number of positive observations and also the reliability of findings. The examinations decreased (as shown in our report), but the volume of work and the number of positive observations increased substantially.

A situation of similar nature exists in the examinations for *M. tuberculosis* as shown in Table XLV. There was a small increase in number of examinations, but the positive observations in 1947 increased by about 50 per cent. During the year there was substantial progress in applying culture technics. A total of 2,135 specimens were examined culturally in Miami, Pensacola and the Jacksonville laboratory. During the preceding year only 115 specimens were so examined. All animal inoculations were handled in the central laboratory.

There has been a particularly marked increase in the number of water and milk specimens examined as shown in Table XLVI. The demand for this work approximately doubled in two years, and most of the increase occurred during 1947.

Rabies has shown a disturbing increase. The number of animal heads found positive in 1947 was more than the total for the

TABLE XLI
TOTAL NUMBER OF EXAMINATIONS ACCOMPLISHED BY THE CENTRAL
AND BRANCH LABORATORIES, 1945 - 1947

Year	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Melbourne	Total
1947	808,396	336,750	227,561	56,726	18,531	15,461	1,463,425
1946	673,316	286,067	217,950	35,262	19,828	.....	1,232,424
1945	580,998	260,092	260,816	18,047	13,135	.....	1,132,998

TABLE XLII
EXAMINATIONS ACCOMPLISHED BY THE CENTRAL AND BRANCH
LABORATORIES, FLORIDA STATE BOARD OF HEALTH, 1947

Type of Examinations	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Melbourne	Totals
Intestinal Parasites	74,773	13,225	4,450	5,286	2,033	.....	99,767
Nose and Throat Specs.	5,972	2,489	484	285	294	.....	9,525
Malaria	3,543	633	229	115	1,101	.....	5,621
Agglutinations	29,349	5,713	8,685	996	499	30	45,272
Culture-Blood	1,405	0	15	0	15	0	1,435
Cultures-Feces	19,025	1,370	1,372	1,281	0	6	23,054
Rabies Examinations	531	356	268	28	0	0	1,183
Tuberculosis	15,282	2,081	2,560	550	211	1	20,985
Gonorrhea	34,185	35,296	26,366	7,114	5,641	9	108,611
Serology-Kahn	95,343	93,745	27,149	16,694	52	5,921	238,904
Serology-Eagle	199,296	113,973	131,260	6,148	52	62	450,791
Serology-Mazzini	295,654	48,597	2,014	7,402	52	5,013	358,732
Darkfield Exams.	92	30	495	0	0	514	1,131
Water-Bacteriology	20,997	4,447	7,306	5,583	2,140	0	40,473
Water-Chemistry	658	0	85	0	0	0	743
Milk Examinations	2,734	12,863	12,208	5,036	6,440	0	39,281
Chemistry-Blood	1,565	1,307	99	0	0	0	2,971
Chemistry-Spinal Flds.	3,387	555	8	0	0	2,114	6,064
Miscellaneous	4,605	70	2,208	208	1	1,790	8,882
TOTALS	808,396	336,750	227,561	56,726	18,531	15,461	1,463,425

TABLE XLIII
SUMMARY REPORT OF EXAMINATIONS PERFORMED DURING 1947

	Positive	Negative	Doubtful	Unsat.	Total	Grand Total
INTESTINAL PARASITES						
Total No. Specimens Examined	21,189	63,986		1,421	86,596	99,767
Helminths ova	17,213					
Hookworm	2,010					
Ascaris	1,385					
Oxyuris	129					
Tapeworm	374					
Trichuris	78					
Strongyloides	13,171				13,171	
Protozoan cysts	7,273					
Endamoeba coli	483					
E. histolytica	1,916					
Endolimax nana	62					
Chilomastix mesnili	3,345					
Giardia lamblia	92					
Iodameba						
THROAT SPECIMENS						
Diphtheria	411	7,781	44	77	8,313	
Cultures		1		1	2	
Virulence Tests	348	575	16	5	944	
Vincent's angina	74	192			266	9,525
Streptococcus						
Malaria	47	5,358	2	210	5,617	
Tertian	1				1	
Estivo-autumnal	3				3	5,621
Untyped						
AGGLUTINATION TESTS						
Typhoid	718	8,863	318	86	9,985	
"H" Agglutinins	137	9,142	192	1	9,472	
"O" Agglutinins	8	228		1	237	
Paratyphoid A	24	209	2	1	236	
Paratyphoid B	205	9,632	63	1	9,901	
Weil-Felix	163	9,710	44	50	9,967	
Brucella abortus	21	5,450	1		5,472	
P. tularensis		2			2	45,272
Rocky Mt. Spotted Fever						
CULTURES						
Blood	2	775		35	812	
Typhoid		1			1	
Salmonella		3			3	
Brucella	9	588		22	619	1,435
Other organisms						
Stool and Urine	74	21,564		179	21,817	
Typhoid	159	432		1	592	22,409
Salmonella						
Stool	216	429			645	645
Bacillary Dysentery						
TUBERCULOSIS						
Microscopic	2,630	15,491	24	687	18,832	
Acid-fast stain						
Fluorescent stain	541	1,523	5	66	2,135	
Cultures	4	14			18	20,985
Animal inoculation						
VENEREAL DISEASES						
Gonorrhea	10,116	60,156	2,608	904	73,784	
Smears	5,578	28,690		337	34,605	
Cultures	11	207	3	1	222	108,611
Ophthalmia						
Syphilis						
Kahn						
Blood	67,921	94,920	6,452	4,722	174,015	
Qualitative	56,217	809			57,026	
Quantitative	123	46	18	3	190	
Verification test	161	179	7	5	352	231,583
Evaluation test						
Spinal fluid	771	5,799	21	52	6,643	
Qualitative	663	15			678	7,321
Quantitative						
Eagle						
Blood	64,164	365,553	8,246	12,828	450,791	450,791
Qualitative						
Evaluation test						
Mazzini						
Blood	56,290	277,019	16,590	8,481	358,380	
Qualitative	172	172	3	5	352	358,732
Evaluation test	500	616	2	13	1,131	1,131
Darkfield	2	2			4	4
Chancroid	23	25			48	48
Granuloma inguinale						

TABLE XLIII
SUMMARY REPORT OF EXAMINATIONS PERFORMED DURING 1947
(Continued)

	Positive	Negative	Doubtful	Unsat.	Total	Grand Total
RABIES						
Dogs	348	596	1	41	986	
Cats	18	94		8	120	
Other animals	28	38	1	10	77	
Animal inoculations						1,183
MISCELLANEOUS						
Smears					274	
Cultures					673	
Other					189	1,136
PHOTOELECTRIC COLORIMETRIC DETERMINATIONS						
Hemoglobin					2,971	
Protein cerebrospinal fluid					6,064	9,035
		No. Samples Examined		Total Number Tests Made		
WATER						
Bacteriological		28,170		40,475		40,475
Chemical						
Water		66		654		
Miscellaneous—Chloride		70		75		
Chlorines		6		6		
Others		8		8		743
MILK PRODUCTS						
Milk		8,001		31,797		
Cream		993		3,259		
Ice Cream		755		1,561		
Chocolate Milk		571		1,805		
Cryoscope		10		10		
Buttermilk		2		2		
Bottle Rinse Test		182		218		
Sedimentation Tests		422		422		
Dairy Alkalies		71		142		
Total Solids—Chocolate Milk		21		38		
Reconstituted Milk		10		27		39,281
MISCELLANEOUS						
Dish Swab Tests		1,171		1,171		
Oysters—Bacteriological		103		391		
Blood Alcohol		7		16		
Blood Sugar		1		1		
Blood Counts		19		32		
Blood Serum Cholesterol		1		1		
Blood Sedimentation Rates		90		91		
Blood Hematoerits		6		8		
Blood Clotting Time		1		1		
Spinal Fluid—Colloidal gold		2,316		2,203		
Spinal Fluid—Cell Count		2,202		2,202		
Urinalysis		59		116		
Narcotics		62		146		
Toxicology		115		819		7,692
Miscellaneous		239		494		
TOTAL						1,463,425

TABLE XLIV
SPECIMENS EXAMINED FOR CORYNEBACTERIUM DIPHTHERIAE, 1945 - 1947

	1947	1946	1945
Number Specimens	8,313	11,875	12,660
Number Positive	411	447	175
Per Cent Positive	4.9	3.8	1.4

TABLE XLV
MICROSCOPIC EXAMINATIONS FOR MYCOBACTERIUM TUBERCULOSIS
1945 - 1947

	1947	1946	1945
Number Examinations	20,985	18,037	18,021
Number Positive	3,175	2,065	2,188
Per Cent Positive	15.1	11.4	12.1

TABLE XLVI
EXAMINATIONS OF WATER AND MILK
1945 - 1947

	1947	1946	1945
Water Samples Tested	28,170	17,230	14,364
Bacteriological Examinations	40,475	20,359	32,247
Milk Samples Tested	8,001	4,868	3,886
Total Examination of all Dairy Products	39,281	23,581	18,381

two years preceding; likewise, the number of heads received, opened and examined, was almost twice the average for the two preceding years. Up to the present negative reports are based wholly on microscopic examination. Animal inoculations should be done particularly if an individual has been bitten, but to date, this has not been practicable.

The calls for toxicological studies have increased rapidly also. This field warrants still further development. In the last two years the volume of this work more than tripled.

In serology, particular attention has been given to standardizing procedures in the branch laboratories. The routine established requires that each specimen shall be examined by two separate procedures. If either or both of these are positive, a third test is done using a quantitative procedure. The performance of the latter as a routine has added substantially to the work load, but the increased value of findings makes the added work very productive.

The central laboratory participated in the Annual Serological Evaluation. The results indicated a very high standard of work as compared with other state laboratories and the laboratories of author-serologists.

The work in other major fields has continued throughout the year without notable changes in methods or volume.

SPECIAL STUDIES

It has been possible only to develop studies which could be carried in association with routine diagnostic work. These included the following:

The introduction of the use of cardiolipin and lecithin as an

antigen in the serologic test for syphilis is an advance of major importance in this field. A wide evaluation of the relative value of the new test as compared with older procedures was needed. The Venereal Disease Research Laboratory of the Public Health Service has requested state laboratories to do parallel examinations, using the new and the older antigens. The central and the Melbourne laboratories are cooperating in this. Approximately 27,000 specimens have been examined comparatively. Findings have been reported to the Public Health Service. Observations of interest locally and nationally are being accumulated.

Special attention has been given to the procedures used in examining for the presence of *M. tuberculosis* in sputum and other materials. This has led to a simplification and improvement of staining procedures and concentration technics. The relative value of cultures and other methods of study was evaluated. The findings were presented at the American Public Health Association meeting in Atlantic City by Dr. R. B. Mitchell.

The study of enteric infections has continued under Mrs. Mildred Galton's direction. She reports there were 19,209 feces specimens examined for organisms causing the enteric infections (typhoid fever, *Salmonella* infections and *Shigella* infections) during 1947. Approximately 85% of these specimens were received from food handlers for routine examination. *Salmonella typhosa* (the typhoid bacillus) was isolated from 61 specimens. There were 167 *Salmonella* isolations (paratyphoid organisms) including 33 types obtained from 164 specimens. Double infections were found in 3 individuals.

The predominating types have been *S. anatum*, *S. typhimurium*, *S. oranienburg*, *S. derby* and *S. newport* in the order named. During 1947, *S. typhimurium* and *S. oranienburg* were involved in 2 outbreaks of acute gastro-enteritis.

The investigation of an outbreak of acute gastro-enteritis in West Florida indicated that oysters were the source of the infection. The examination of 84 oyster samples for enteric pathogens revealed *S. thompson* in two samples.

Among the cultures received for classification from other laboratories, there was one *Salmonella* not previously found in the State. This culture, *Salmonella pullorum*, was isolated from the feces of a chick by a private laboratory and sent to this laboratory for identification. Another culture isolated from the blood of an individual in Evansville, Indiana, who had returned from a Florida vacation just prior to his illness, was received from an Evansville hospital laboratory. This organism proved to be *S. javiana*.

Shigella (dysentery organisms) were isolated from 33 feces specimens. Of these, 28 were *Shigella ambigua* (the Schmitz bacillus); 4 *Shigella paradysenteriae* (Flexner) and 1 *Shigella sonnei* (Sonne type). The majority of the Schmitz cultures (26) were isolated from chimpanzees at the Yerkes Laboratory of Primate Biology, Orange Park, Florida, during an outbreak of acute diarrhea. Sulfadiazine resistance studies were made on the Schmitz cultures. A report of this work has been prepared for publication.

Table XLVII shows a gradual decrease in the isolations of typhoid and *Salmonella* organisms and a sharp decrease in the number of *Shigella* organisms found since 1945.

TABLE XLVII
ENTERIC PATHOGENS ISOLATED FROM 60,308 FECES SPECIMENS

	1947	1946	1945
Fecal cultures examined	19,209	21,382	19,717
SALMONELLA isolations	167	192	220
SALMONELLA types	33	33	33
Typhoid isolations	61	88	91
SHIGELLA isolations	33	36	107

APPROVAL OF PRIVATE LABORATORIES

Attention has been given to the development of an effective and acceptable program for the approval of Medical Technologists and Medical Laboratories in Florida. A comprehensive plan has been evolved through free discussions and numerous revisions. It is being used as an unofficial working guide in planning an educational and evaluation program which will be carried out in 1948.

LABORATORY QUARTERS AND EQUIPMENT

The amount of work carried in the central laboratory continues to increase, new staff members are added, but the working space remains the same. This is an old problem, but each year it becomes more acute. The new quarters for the chemistry laboratory which one year ago seemed "reasonably adequate" are now obviously crowded. The urgent need for adequate laboratory space for the central laboratory must be emphasized again.

The space available to the Miami, Tampa and Pensacola laboratories has remained unchanged. The renovation program for the Tampa laboratory has been postponed for budgetary reasons. It is to the great credit of Mr. Venters and his staff that, seriously handicapped, they still have handled in a superior manner the largest volume of work done in any branch laboratory.

The Tallahassee branch laboratory moved to new quarters provided by the Florida State University. Previously the space was occupied by Doctor Mark Boyd. Minor changes only were necessary to make this suitable for bacteriological and serological work, as well as for parasitology. Due to the various changes, the amount of work performed in that laboratory was held to a minimum. During 1948 the specimens from four health units of eight counties will be directed to this laboratory.

One new laboratory was opened during the year. This is designed primarily to serve the State Hospital in Melbourne. It is operated in and as a part of the hospital. It functions under the technical direction of the Bureau of Laboratories and the administrative direction of the medical officer in charge of the hospital.

A budget for the Orlando laboratory became available in July. Equipment was ordered at that time. Very little was delivered in the six months following. Negotiations for space have proceeded slowly, but it is anticipated that buildings at the Orlando Air Base will be available early in 1948.

The delayed delivery of equipment and supplies has continued to be a handicap. Some items ordered two years previously were delivered at the close of 1947. Glassware and mailing containers have been received in more nearly adequate amounts.

PERSONNEL

The major problems in this, as in all medical laboratories, continued to be the maintenance of an adequate staff of well qualified technical workers. Throughout the year there was substantial improvement, due chiefly to the results of the training program. This was started in July, 1946. The staff now includes 16 college graduates and 7 non-graduates who entered service as trainees. They are able to carry more responsibility with each month of additional experience. Four more graduates have been accepted, whose training will begin February, 1948. In this group as a whole, there are 11 veterans. Five trainees are registered concurrently as graduate students in bacteriology at the University of Florida.

The retirement in 1947 of four experienced workers seriously depleted the senior staff. Mr. Henry P. Brown was the senior in years of service in the laboratory. Miss Pearl Griffith had acted as Director on three separate occasions. Both had contributed greatly to the development of the laboratories, and to the field of bacteriology in which they worked. Miss Lena Starck, who completed 30 years of service in the "Water Laboratory," also is accepting the benefits of Florida's retirement law

early in 1948. Mrs. Janet Bell, Chief of the Tallahassee branch, joined the laboratories at a later time, but was eligible for retirement. Four other senior workers were lost by resignation. These vacated positions are being filled in part by the advancement of younger workers, but four new appointments were made. Despite the serious losses and persisting inadequacies, there is room only for optimism for the future. Senior workers who have joined the laboratory are contributing richly, and an energetic and promising group of young workers are preparing themselves to fill with credit other responsible positions which are or will be open.

BUREAU OF NARCOTICS

M. H. DOSS, Ph.G., Director

The Bureau of Narcotics is charged by law with the enforcement of all narcotic, medical, pharmacy, narcotic vehicle seizure act, registration and licensing of all drug stores, wholesale drug concerns handling narcotics, practitioners of the healing arts, and guarding of the buildings, grounds and equipment of the State Board of Health. The table of activities carried in this report is confirmed by individual case reports permanently on file in this office.

The personnel of the bureau consists of five narcotic inspectors, three uniformed guards, a chief clerk and a senior clerk together with a Jacksonville detective assigned to the bureau by the City. Field offices are located at Miami, Tampa and Tallahassee.

TOTAL SUMMARY OF ACTIVITIES

Total number open inspections	2138
Total number investigations	1122
Total number arrests	92
Total number violations corrected where no legal action was taken	114
Aggregate sentences imposed by the courts	
59 years, 10 months, 3 days	
Aggregate fines imposed by the courts	\$3,825.00
Total number defendants receiving probation, deferred or suspended sentences	18
Total number cases discharged or nolle prosequi by the courts	4
Total number narcotic addicts confined to State or Federal institutions for treatment	7
Total number cars seized under State Narcotic Vehicle Seizure Act	4
Total number cases resulting in an acquittal by jury	4
Total number miles driven	105,764

UNIFORM NARCOTIC DRUG ACT (Chapter 398, Florida Statutes 1941)

Number arrests	69
Aggregate sentences imposed by criminal courts	
58 years, 4 months, 3 days	
Aggregate fines imposed by criminal courts	\$800.00
Number persons receiving probation, deferred, withheld or suspended sentences	15
Number cases discharged or nolle prosequi by the courts	2
Number prosecutions resulting in an acquittal	3

STATE DRUG AND SIGN ACT (Pharmacy)
(Chapter 465, Florida Statutes 1941)

Number arrests	18
Aggregate fines imposed by criminal courts	\$1,575.00
Number defendants receiving withheld sentences	3
Number drug stores or pharmacies registered for fiscal year 1947-48	794
Number violations corrected where no legal action was taken	104
Number injunctions obtained in circuit court	1
Number pharmacists reported to Board of Pharmacy for revocation or suspension of license	7

MEDICAL PRACTICE ACT
(Chapter 458, Florida Statutes 1941)

Number arrests	10
Aggregate sentences imposed by the criminal courts 1 year, 6 months	\$1,450.00
Aggregate fines imposed by criminal courts	2
Number cases discharged or nolle prosequi by the courts	1
Number injunctions obtained in circuit court	1
Number cases resulting in acquittal	10
Number violations corrected where no legal action was taken	3,130
Number Medical Doctors (M.D.) registered	438
Number Osteopathic Physicians (D.O.) registered	234
Number Naturopathic Physicians (N.D.) registered	353
Number Chiropractic Physicians (D.C.) registered	740
Number Masseurs registered	118
Number Chiropodists registered	1
Number Temporary Doctors registered	1

It is recommended that an additional inspector, preferably a young man, be employed and placed in training throughout the State to replace any vacancy that might occur.

FIELD TECHNICAL STAFF

L. L. PARKS, M.D., M.P.H., Director

The Field Technical Staff was organized January 1, 1947. It consists of two Record Consultants, two Nurse Consultants, two Sanitation Consultants and the Director. One Nurse and one Record Consultant were employed for only eight months during the year. This organization is financed jointly by the State Board of Health and the Commonwealth Fund of New York. It functions directly under the State Health Officer. The Commonwealth Fund is helping to finance the staff over a period of five years. There is a gradual withdrawal of financial support by the Commonwealth Fund and at the end of five years the State will take over all of the expenses.

The primary purpose of the Staff is the continual training of health workers in the counties, by demonstration, observation, teaching new techniques as in nursing or otherwise. Visits are made with the individual health worker, either in the clinic, office, home, cafe or other places that the health worker may be working. The Field Technical Staff acts as a medium of exchange. If one county is carrying on a good program in some particular field the good ideas obtained from one county are given to the other counties for consideration in their health program.

The counties visited this year have been the counties that had special health problems or smaller health units that had untrained or inexperienced personnel. The members of the Field Technical Staff aided these new health workers by going along with them and making suggestions in how to meet the various health problems in the field. Trainees from the Alachua County Training Center have been visiting in the field to assist them in adjusting themselves to the local conditions in a new job.

All members of the Staff do not visit health units at one time. The health units are visited individually by members of the Staff. The Staff member is not considered a visitor by the health unit and does not expect special entertainment. He visits as another health worker and he fits into the program that is already scheduled for the day. Members of the Staff may visit anywhere from one day to a week or two weeks, depending upon the size of the health unit, the health problems, and the training of the personnel in the county. The table below does not show state coverage as is desired, but the visits made were where it was

thought they were most needed. Where there was an experienced and trained Sanitary Officer, Supervising Nurse or a good Secretary that county was not visited by all members of the Field Technical Staff. There is a very definite shortage of Nurse Consultants and at least three Nurse Consultants are needed to cover the state reasonably often.

The members of the Staff, especially the Director and one of the Sanitation Consultants have devoted some time to administrative matters in cooperation with the Bureau of Local Health Service in addition to their routine duties.

Physicians that have come into public health without previous training or experience have been visited by the Staff for instructional purposes.

TABLE XLVIII
VISITS MADE BY MEMBERS OF THE STAFF

Visitor	Number of Counties Visited	Number of Visits
Record Consultant	50	72
Nurse Consultant	30	86
Sanitation Consultant	44	95
Director	35	48

The Staff acts as a coordinating agent with all Bureaus and Divisions of the State Board of Health. It presents constructive criticisms from the health worker in the field to the various Bureaus and Divisions of the State Board of Health and in that way helps to improve the health services in the state level as well as in the counties.

After visits are made in the county to observe the county health problems and how these problems are being met, Staff members study the program of the health unit and make recommendation on how to improve the services, if possible. Some counties want to specialize in one particular program at the expense of other needed services. It is believed that a generalized program is best suited in the average county. These facts are reviewed with the Health Officer. Emphasis is placed on program planning if the work is not already properly planned. Proper recording of services rendered is stressed so that work is coded in a standard way throughout the state and these accomplishments can be compared from county to county.

The Field Technical Staff, being a new department of the State Board of Health, learned it was necessary to show the county health workers that the purpose of the Staff was to help the county health units and not to just criticize but make constructive suggestions as the job is conducted in the field.

BUREAU OF VITAL STATISTICS

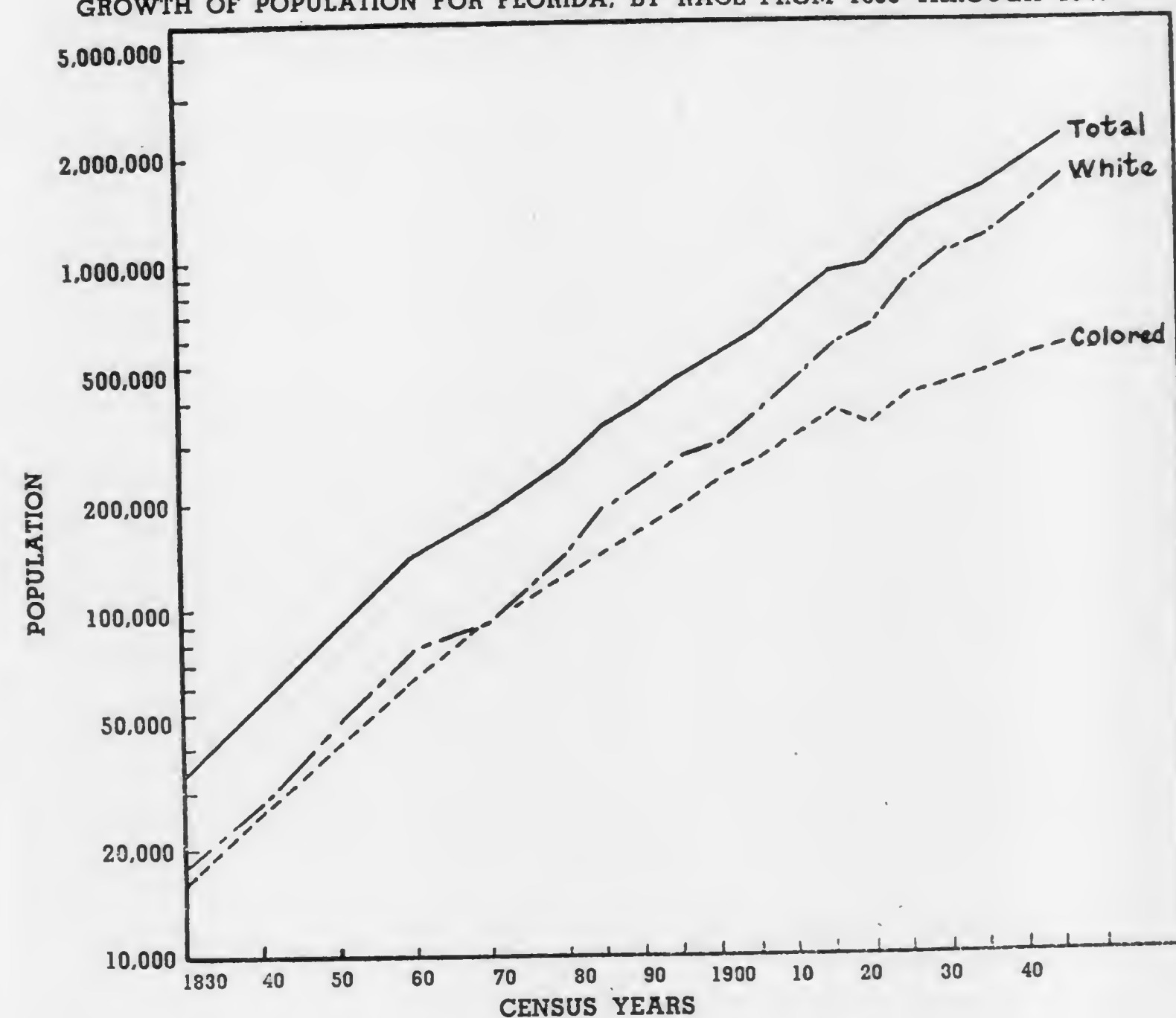
EVERETT H. WILLIAMS, JR., Acting Director

This report contains a brief summary of the statistical data tabulated for the year 1947 and covers the activities of the Bureau of Vital Statistics. The 1947 annual statistical report of this Bureau will be published separately and will contain more detailed statistical data regarding births, deaths, marriages, and divorces. Previous issues of this annual statistical report may be obtained upon request to this office.

POPULATION

The estimated population as of July first, 1947, for the state of Florida is 2,407,000. This consists of 1,834,700 white and 572,300

FIGURE 11
GROWTH OF POPULATION FOR FLORIDA, BY RACE FROM 1830 THROUGH 1945



colored. This population estimate is based on the assumption that the annual increase in population since 1945 has been the same as was the annual increase between the Federal Census of 1940 and the State Census of 1945.

Figure number eleven is a graph showing the growth of Florida's total, white, and colored population from the Federal Census of 1830 to the most recent State Census of 1945. This graph shows that the total population has had a fairly steady rate of increase of about 18% for each five year period since 1860. The white population increase has been slightly higher while the rate of increase of the colored population has been gradually getting lower. For the 1940-1945 period the white increase was 22.7% and the colored increase was 7.6%.

BIRTHS

There were 61,300 births recorded in Florida during 1947, with a birth rate of 25.5 per 1,000 population. This is the highest number of births on record in this state and is the highest birth rate since 1927. Table XLIX and Figure number twelve show the number of births and birth rates for Florida for the period 1917-1947.

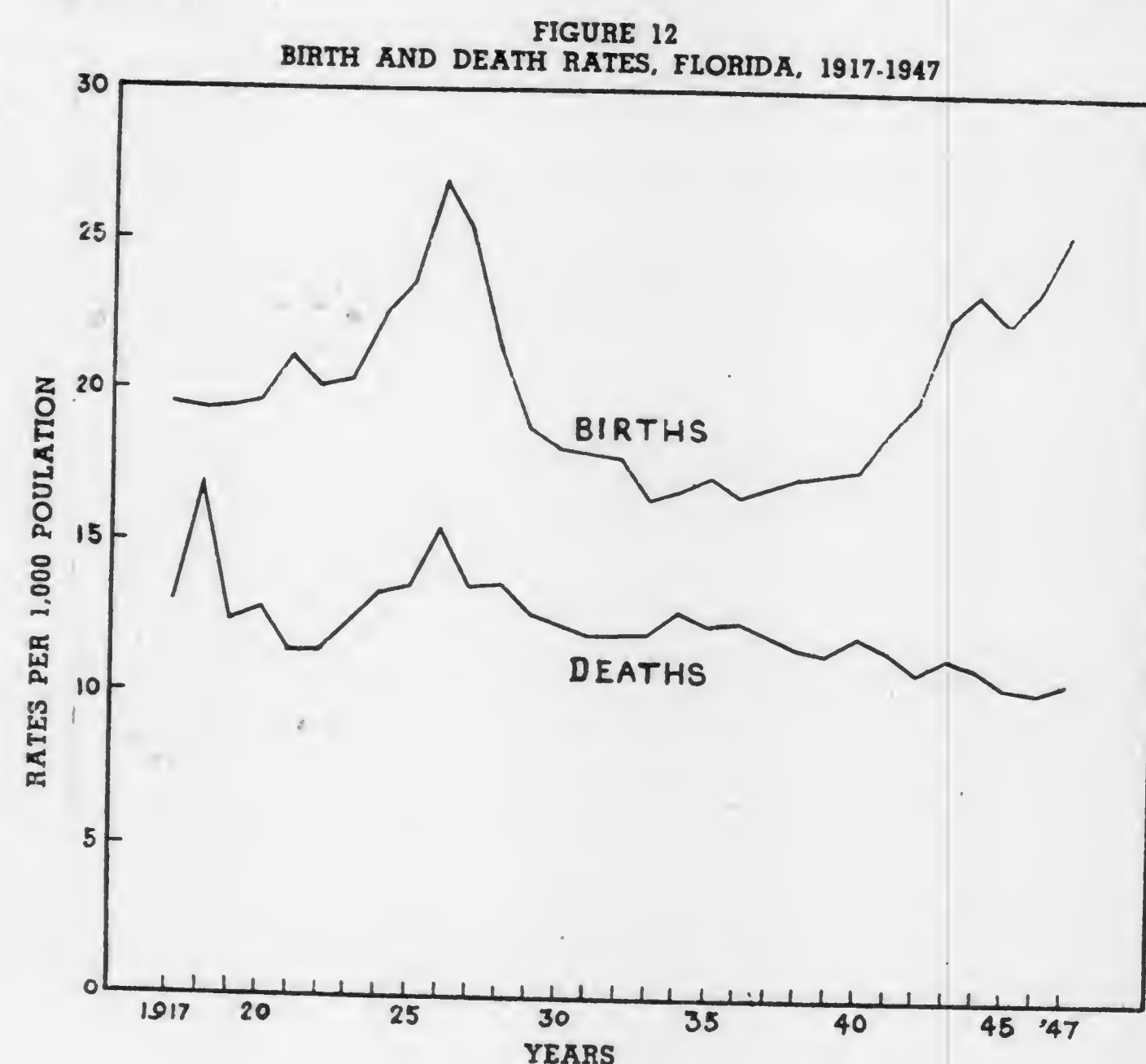


TABLE XLIX
RECORDED BIRTHS AND BIRTH RATES (PER 1,000 POPULATION), FLORIDA,
1917 - 1947

YEARS	BIRTHS	RATE	YEARS	BIRTHS	RATE
1947	61,300	25.5	1931	27,033	18.0
1946	55,142	23.6	1930	26,991	18.2
1945	51,051	22.5	1929	26,853	18.8
1944	51,654	23.5	1928	29,776	21.5
1943	48,299	22.7	1927	34,061	25.5
1942	40,898	19.9	1926	34,721	27.0
1941	37,550	18.9	1925	29,301	23.7
1940	33,790	17.6	1924	26,748	22.5
1939	32,328	17.4	1923	23,221	20.4
1938	31,095	17.3	1922	21,973	20.2
1937	29,488	17.0	1921	22,074	21.2
1936	28,084	16.7	1920	19,540	19.7
1935	28,049	17.3	1919	18,653	19.5
1934	26,694	16.8	1918	18,141	19.4
1933	25,681	16.5	1917	17,921	19.6
1932	27,411	17.9			

DEATHS

In 1947, there were 25,469 deaths recorded in the State of Florida and the death rate was 10.6 per 1,000 population. This is slightly higher than the death rate of 10.3 established in 1946. Figure number twelve shows the trend of recorded death rates in Florida for the period 1917-1947. Table L shows the number of recorded deaths and death rates for certain selected causes from 1917-1947. The 1947 death rates for the following causes were the lowest on record for this state: Infant Mortality, Maternal Mortality, Typhoid Fever, Malaria, Diphtheria, Diarrhea and Enteritis. The Tuberculosis death rate was slightly higher in 1947 than for the previous year. Heart Disease and Cancer continue to be the two leading causes of death and the death rate for both continues to rise. In 1947 there were 7,212 deaths attributed to heart disease and the death rate was 299.6 per hundred thousand population. The cancer death rate was 112.0 with 2,697 deaths. Table LI shows the number of RESIDENT and RECORDED deaths in 1947 by color for the important causes of death. RECORDED deaths are those which occurred in the state of Florida. RESIDENT deaths are those of residents of this state which occurred both in and out of the state.

MARRIAGES AND DIVORCES

There were 23,959 marriages performed in Florida during the year 1947. This represents a twenty per cent decrease from the preceding year and is fifty-six per cent less than the peak year of 1943 when 53,912 marriages were performed in the state.

In 1947, there were 20,703 divorces granted in this state. This is a twenty-one per cent decrease from the peak year 1946 when 26,112 divorces were granted. There were 1.16 marriages for each divorce in 1947. This ratio was 1.15 in 1946 and 1.8 in 1945.

TABLE I
RECORDED DEATHS AND DEATH RATES PER 100,000 POPULATION, FLORIDA, 1917-1947

YEAR	DEATHS FROM ALL CAUSES		INFANT MORTALITY		MATERNAL MORTALITY	TYPHOID	MALARIA	TUBERCULOSIS	DIPHTHERIA	DIARRHEA & ENTERITIS	CANCER	HEART DISEASE
	Deaths	Rate*	Deaths	Rate**	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
1947	25,469	10.6	2,268	37.0	130	2.1	8	0.3	760	31.6	138	5.7
1946	24,129	10.3	2,107	38.2	158	2.9	11	0.7	687	29.4	137	5.9
1945	23,672	10.4	2,097	41.1	146	2.9	15	0.7	701	30.9	137	5.9
1944	24,453	11.1	2,217	42.9	166	3.2	15	0.7	791	36.0	252	11.1
1943	24,259	11.4	2,167	44.9	170	3.5	17	0.8	834	39.2	249	11.7
1942	22,334	10.6	1,947	47.6	168	4.1	26	1.3	859	41.8	234	11.4
1941	23,125	11.6	1,975	52.6	285	6.3	26	1.3	916	46.1	276	13.9
1940	22,928	12.0	1,809	53.5	215	6.4	23	1.2	921	49.7	202	10.8
1939	21,293	11.5	1,821	56.3	209	6.5	27	1.5	961	50.3	219	11.5
1938	21,023	11.7	1,804	58.0	234	7.5	46	2.6	987	52.2	304	16.4
1937	20,958	12.1	1,759	59.7	196	7.7	45	2.6	966	55.0	346	19.3
1936	20,948	12.5	1,664	59.3	216	7.7	39	2.3	905	55.6	279	15.7
1935	20,047	12.4	1,730	61.7	238	8.5	46	2.9	903	55.7	263	15.7
1934	20,357	12.8	1,818	68.1	219	8.2	46	2.9	953	60.1	335	20.7
1933	18,764	12.1	1,619	63.0	285	11.1	63	4.1	1,039	66.9	337	21.3
1932	18,203	12.0	1,680	61.3	262	9.6	85	5.6	1,067	71.5	272	17.8
1931	18,215	12.3	1,737	64.3	267	9.9	87	5.8	1,015	68.6	292	19.4
1930	18,155	12.7	1,766	65.8	255	9.3	83	5.8	1,014	70.8	359	24.3
1929	18,932	13.7	2,000	67.2	280	9.4	121	8.7	1,097	82.2	355	24.8
1928	18,143	13.6	2,003	67.6	352	10.3	142	10.6	1,187	92.3	437	31.6
1927	20,029	15.6	2,614	75.3	357	10.3	187	15.1	1,054	88.7	633	47.4
1926	16,832	13.6	2,179	74.4	330	11.3	187	15.1	999	80.8	682	58.1
1925	15,797	13.3	2,182	81.6	284	10.6	157	13.2	939	84.7	776	62.8
1924	14,074	12.4	1,822	78.5	287	12.4	177	15.5	867	75.5	700	58.9
1923	12,465	11.4	1,691	77.0	235	10.7	163	14.9	801	66.6	642	56.4
1922	11,764	11.3	1,770	80.2	230	10.4	186	17.9	951	91.3	538	49.3
1921	12,674	12.8	1,835	94.0	181	9.3	252	22.2	951	91.3	496	45.5
1920	12,674	12.8	1,835	94.0	181	9.3	252	22.2	951	91.3	577	55.4
1919	11,830	12.4	1,659	88.9	183	9.8	440	36.0	1,016	102.3	604	60.8
1918	16,031	17.1	1,947	107.3	174	9.6	273	23.9	993	103.7	578	60.4
1917	11,992	13.1	1,897	105.9	207	11.6	273	23.9	1,084	115.9	835	89.3

*-Rates per 1,000 Population
**-Rates per 1,000 live births.

TABLE LI
RESIDENT AND RECORDED DEATHS, BY CAUSE, BY COLOR, FLORIDA, 1947

CAUSES OF DEATH (Numbers following causes of death are those of the International List, Fifth Revision, 1938)	RESIDENT			RECORDED		
	Total	White	Colored	Total	White	Colored
Typhoid fever (1)	8	2	6	8	2	6
Paratyphoid fever (2)	2	2		2	2	
Undulant fever (5)				1	1	
Cerebrospinal Meningitis (6)	20	13	7	22	13	9
Scarlet fever (8)						
Whooping Cough (9)	30	15	15	31	16	15
Diphtheria (10)	17	13	4	17	13	4
Tuberculosis of Respiratory System (13)	754	367	387	720	352	368
Tuberculosis, all other forms (14-22)	42	20	22	40	19	21
Septicemia & Purulent Infection, Nonpuerperal (24)	11	5	6	12	6	6
Gonococcus Infection (25)	2	1	1	3	1	2
Tularemia (26A)						
Dysentery (27)	12	5	7	11	4	7
Malaria (28)	7	2	5	7	2	5
Syphilis (30)	256	84	172	249	87	162
Influenza (33)	175	83	92	186	91	95
Smallpox (34)						
Measles (35)	4	4		4	4	
Acute Poliomyelitis (36)	6	6		5	5	
Acute Infectious Encephalitis (37)	8	8		9	9	
Rabies (38B)	1		1	1		1
Typhus fever (39)	7	5	2	8	5	3
Other Infect. & Parasitic diseases (3, 4, 7, 11; 12, 23, 26B, 29, 31, 32, 38a, c, d, e, f, 40-44)	91	36	53	89	35	54
Cancer, all forms (45-55)	2,686	2,232	454	2,697	2,251	446
Nonmalignant and unspecified Tumors (56, 57)	92	62	30	92	62	30
Acute Rheumatic fever (58)	15	10	5	16	11	5
Diabetes Mellitus (61)	458	375	83	494	409	85
Pellagra (69)	13	9	4	13	9	4
Leukemias & Aleukemias (74)	100	89	11	108	97	11
Alcoholism (77)	40	25	15	45	30	15
Cerebral Hemorrhage, Embolism, Thrombosis & Softening (83)	2,485	1,705	780	2,603	1,828	775
Other diseases of the Nervous System (80-82, 84-89)	244	164	80	244	162	82
Diseases of the Heart (90-95)	6,438	5,232	1,206	7,212	5,999	1,213
Diseases of the Arteries (96-99)	396	327	69	416	349	67
Other diseases of the Circulatory System (100-103)	65	36	29	72	43	29
Pneumonia (107-109)	818	474	344	842	500	342
Other Respiratory diseases (104-106, 110-114)	312	236	76	323	248	75
Diarrhea & Enteritis, under 2 years (119)	94	62	32	94	61	33
Diarrhea & Enteritis, 2 years and over (120)	40	27	13	44	31	13
Appendicitis (121)	109	63	46	109	63	46
Hernia, Intestinal Obstruction (122)	251	175	76	255	180	75
Cirrhosis of the Liver (124)	250	201	49	260	211	49
Other diseases of the Digestive System (115-118, 123, 125-129)	418	281	137	438	300	138
Nephritis (130-132)	1,563	1,004	579	1,647	1,072	575
Other diseases of Genito-urinary System (133-139)	310	215	95	304	210	94
Puerperal Infection (140, 147)	30	15	15	28	15	13
Other diseases of Pregnancy, Childbirth & Puerperium (141-146, 148-150)	105	44	61	102	42	60
Congenital Malformations (157)	308	251	57	308	250	58
Premature Birth (159)	857	627	230	852	623	229
Other diseases peculiar to first year of life (158, 160, 161)	475	328	147	476	331	145
Senility (162)	262	182	80	264	183	81
Suicide (163, 164)	291	280	11	310	299	11
Homicide (165-168)	381	82	299	390	90	300
Motor Vehicle Accidents (170)	729	561	168	807	637	170
All other Accidents (169, 171-195)	1,189	818	371	1,291	916	375
All other defined causes (59, 60, 62-68, 70-73, 75, 76, 78, 79, 151-156, 196-198)	206	144	62	209	148	61
Ill-defined and unknown causes (199, 200)	647	314	333	679	343	336
TOTAL DEATHS	24,150	17,323	6,827	25,469	18,670	6,799

ACTIVITIES

During the past year the local registration system for the collection of data on births and deaths was revised in forty-nine of the sixty-seven counties. In this revised system, the County Health Officer is appointed as local registrar and the collection of vital statistics data is centralized in the county health department. This system is designed for more efficient registration of births and deaths and makes data available to the county health department for the planning and the evaluation of its health program.

There were 860 adoptive birth certificates placed on file last year. There were also 3,293 delayed birth certificates filed. A delayed birth certificate is the type which must be used if a certificate was not filed before the person's fourth birthday, and it must be accompanied by sufficient evidence to prove the date and place of birth, and the parent's names. 1,462 of these delayed birth certificates were filed with the various County Judges and forwarded by them to this office. 65,274 requests were received for searching the records and 57,209 certified copies of records were issued.

A complete survey was made of all office procedures and changes were made which have resulted in the saving of many work hours. Flow-charts were made of all office procedures. Equipment was ordered which will enable us to use the 35mm. microfilm procedure to replace the hand-transcribing of all Florida birth and death certificates for reporting to the National Office of Vital Statistics during the coming year.

Plans have been made to start an intra-state exchange of non-resident certificates between the various counties as of January first, 1948. Under this plan each county health department will receive photostatic copies of the birth and death certificates for residents of their county when the event occurred elsewhere. This will enable the county health departments to make statistical tabulations based on "place of residence" for an evaluation of the health conditions of the persons who reside in each particular county.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, Director

At the close of the calendar year 1947, seventeen persons were assigned to the Bureau charged with carrying out all fiscal and personnel responsibilities. All members of the Bureau keenly feel the extremely important responsibilities of the department as a service organization.

Constant effort is made to serve all Bureaus, Divisions and County Health Units efficiently and expeditiously in the payment of salaries, travel expenses, and other obligations, and in the handling of all personnel actions such as recruitment, employment, termination, reclassification, salary change, maintenance of leave records, efficiency reports, and training records.

The 1947 State Legislature carefully considered the State Board of Health request for state funds and appropriated \$1,668,950 for each year of the 1947-1949 biennium representing an increase of 110%. This most certainly reflects the fine efforts of the Governor, the Board of Health, the State Health Officer, and all program Directors and personnel in selling the public health program to the people of the State.

FISCAL SECTION

The financial transactions of the State Board of Health for the fiscal year ended June 30, 1947, as reflected by the records of the Bureau of Finance and Accounts are presented in the condensed tables that follow. A detailed Financial Report for the fiscal year ended June 30, 1947, has been prepared and distributed to interested parties.

In addition to funds disbursed as indicated in the following condensed tables the State Board of Health was furnished supplies and materials and the services of a number of persons, the cost of which was borne directly by the U. S. Public Health Service, other State Departments, and various local units of government within the State. The value of these services amounted to \$531,160.46, and were mainly to aid the Venereal Disease, Tuberculosis and Malaria Control programs.

During the year the Fiscal Section processed approximately 18,000 vouchers for payment from 78 State Board of Health Funds. In liquidating all obligations of the Board, approximately 33,000 warrants to payees were handled.

Fiscal operation followed a budget plan of 83 departmental budgets. These budgets were frequently revised to meet changing situations. The majority of the revisions related to county health unit budgets primarily because a number of county health units were able to obtain increased local funds to be used in an expanded program after the initial budget was prepared.

TABLE LII
FLORIDA STATE BOARD OF HEALTH—STATEMENT OF AVAILABLE FUNDS
AND CASH OBLIGATIONS FOR THE FISCAL YEAR ENDED JUNE 30, 1947

	Total	State Approp- riations and Authorized Fees	Local Health Unit Funds	U. S. Public Health Service	Childrens Bureau	Other
AVAILABLE FUNDS:						
Cash Balance—July 1, 1946	\$ 756,212.57	\$ 78,833.02	\$ 202,168.39	\$ 87,781.62	\$363,578.08	\$23,851.46
Receipts:						
State Appropriations	830,194.20	830,194.20				
Fees Authorized by Law	60,043.45	60,043.45				
From Local Agencies for Local Health Units	949,104.09		949,104.09			
Federal Grants-in-Aid	1,422,446.68			998,797.95	423,648.73	
Private Contributions	64,076.32					64,076.32
Total Available Funds	\$4,082,077.31	\$ 969,070.67	\$1,151,272.48	\$1,086,579.57	\$787,226.81	\$87,927.78
Percent of Total	100%	24%	28%	27%	19%	2%
Adjustment to Reflect Transfers		—308,151.20	308,151.20			
Adjusted Total Available Funds	\$4,082,077.31	\$ 660,919.47	\$1,459,423.68	\$1,086,579.57	\$787,226.81	\$87,927.78
Percent of Total	100%	16%	36%	27%	19%	2%
CASH OBLIGATIONS:						
Operating Expenditures (See Tables LIII and LIV)	\$3,686,132.09	\$ 635,622.01	\$1,256,208.23	\$1,070,512.38	\$647,983.59	\$75,805.88
Unencumbered Funds—Return- able to State Treasury and/or Contributors	18,299.98	6,253.93		550.05	10,526.27	969.73
Encumbrances, June 30, 1947	141,903.50			15,517.14	126,386.36	
Total Cash Obligations	\$3,846,335.57	\$ 641,875.94	\$1,256,208.23	\$1,086,579.57	\$784,896.22	\$76,775.61
Percent of Total	100%	17%	33%	28%	20%	2%
UNENCUMBERED FUNDS AVAILABLE FOR EXPENDI- TURE IN FISCAL YEAR 1948	\$ 235,741.74	\$ 19,043.53	\$ 203,215.45	\$ 00	\$ 2,330.59	\$11,152.17

TABLE LIII
FLORIDA STATE BOARD OF HEALTH
STATEMENT OF OPERATING EXPENSES BY OBJECT FOR THE FISCAL YEAR
ENDED JUNE 30, 1947

OPERATING EXPENSES	AMOUNT
Salaries	\$2,121,357.16
Other Personal Services (Includes fees for Clinical Services, fees to Merit System Examiners and for Vital Statistic's Registrars)	76,910.08
Travel Expenses, including Subsistence and Lodging	383,732.00
Communications	36,411.68
Supplies and Materials	302,612.96
Equipment	133,200.32
Building and Fixed Equipment	25,920.72
Printing, Binding and Publicity	17,872.93
Repairs, Maintenance and Alterations	31,814.51
Rents	19,754.66
Miscellaneous Payments	20,102.32
Emergency Maternal and Infant Care for Eligible Servicemen's Families	328,433.07
Drugs and Biologicals	188,009.68
TOTAL OPERATING EXPENSES	\$3,686,132.09

TABLE LIV
FLORIDA STATE BOARD OF HEALTH
STATEMENT OF OPERATING EXPENSES BY PUBLIC HEALTH PROGRAM
ACTIVITY FOR THE FISCAL YEAR ENDED JUNE 30, 1947

ACTIVITY	AMOUNT
Health Services to Mothers, Infants, Preschool and School Children	\$1,004,698.88
Statewide Venereal Disease Control, Diagnostic and Referral of Infectious VD Patients to the Rapid Treatment Center and Operation of Rapid Treatment Center	924,819.36
Sewage and Waste Disposal, Water Supply and Treatment, and General Public Health Engin- eering Operations	728,264.24
Statewide Tuberculosis Control, X-ray Surveys and Follow-up Work	312,884.53
Vital Statistics Records and Reports	105,964.11
Public Health Training Program	42,803.41
Narcotic, Drug, Medical Practice Law Enforcement	37,459.42
Industrial Hygiene Program	18,232.06
Cancel Control Program	15,370.84
Merit System Operation	10,715.27
General Health Program, Education and Administration	484,919.97
TOTAL OPERATING EXPENSES	\$3,686,132.09

NOTE: The total operating expenses are summarized herewith as to Public Health program activity on an estimated basis since formal cost accounting by program is not maintained. The accounts designated have been determined after careful review of activity reports of County Health Units, various departments, and other fiscal data maintained in the Bureau of Finance and Accounts.

PERSONNEL OFFICE

PAUL T. BAKER

During the year ending December 31, 1947, the Personnel Supervisor maintained a complete system of personnel records on all employees. Leave records were developed and maintained and periodic efficiency ratings were obtained and recorded. Records of in-service training of employees were maintained and the application of regulations governing such training was insured. All employees at State Headquarters were encouraged by the Personnel Supervisor to discuss with him their employment problems, if any. At the usual times for consideration by the State Board of salary increases, full information concerning the employee was made available to the Board in order that all employees might be treated equitably. Careful check was made to insure that all appointments and termination were made in accordance with rules adopted by the State Board of Health.

The payrolls for all employees were prepared in the Personnel Office and forwarded to the Comptroller for payment. All matters pertaining to the Retirement Plan were handled promptly and each employee was urged to participate in the Plan.

On December 31, 1946, there were 1,031 employees in the State Board of Health, exclusive of 100 federal employees who were paid from federal funds. On December 31, 1947, there were 1,106 state employees and 54 federal employees.

During the year there were 623 employments and 548 terminations.

On December 31, 1947, the Merit System status of our employees was as follows:

Permanent and Probational	499
Provisional	375
Temporary	4
Emergency	46
War Duration	1
Exempt and Part-time	181
TOTAL	1,106

TABLE IV
DISTRIBUTION OF PERSONNEL AT MAIN OFFICE, BRANCH LABORATORIES AND RAPID TREATMENT CENTER, DECEMBER 31, 1947

	Administration	Cancer Control	Dental Health	Entomology	Field Technical Staff	Finance and Accounts	Health Information	Industrial Hygiene	Laboratory-Central	Local Health Service	Maternal and Child Health	Narcotics	Nutrition	Personnel	Preventable Diseases	Public Health Nursing	Purchasing and Property	Sanitary Engineering	Tuberculosis Control	V. D. Control	Vital Statistics	Miami Laboratory	Pensacola Laboratory	Tallahassee Laboratory	Tampa Laboratory	Rapid Treatment Center	Total
Physicians		1						1	1		2		1						1							1	11
Nurses													1													6	17
Dentists			1																							1	1
Sanitation Personnel:																											16
Graduate engineers								1					2						15								16
Others																		1									4
Laboratory Personnel (Technical)													2														49
Health Educators																											4
Nutritionists													2														2
Medical Social Workers													2														4
Clerical-Administrative-Fiscal													2														2
Part Time																											2
Exempt																											2
Others																											2
Federal Employees																											54
TOTAL	22	3	2	47	7	11	11	4	70	4	9	10	8	6	24	9	5	27	20	3	52	19	5	7	19	47	451

TABLE LVI
DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS AND TRAINING CENTER, DECEMBER 31, 1947

	Alachua	Baker	Bay	Bradford	Brevard	Broward	Calhoun	Charlotte	Clay	Columbia	Dade	DeSoto	Dixie	Duval	Escambia	Flagler	Franklin	Gadsden	Gilchrist	Glades	Gulf	Hamilton	Hardee	Hendry	Highlands	Hillsborough	Holmes	Indian River	Jackson	Jefferson	Lafayette
Physicians	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Nurses	5	1	5	3	3	6	1	1	1	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dentists																															
Sanitary Personnel:																															
Graduate Engineers																															
Others																															
Laboratory Personnel (Technical)																															
Health Educators																															
Nutritionists																															
Medical Social Workers																															
Clerical-Administrative-Fiscal	2	2	3	1	1	2	1	1	1	1	2	1	1	1	1	1	1	2	1	1	1	1	1	1	2	25	1	1	1	1	1
Part Time	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1	1	1	1	1	1
Exempt	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1
Others																															
TOTAL	11	5	14	7	7	12	3	2	4	7	11	4	4	32	34	1	5	10	1	2	5	3	3	1	6	104	6	5	7	5	2

a. Also serves Clay and Union Counties

b. Also serves Osceola County

c. Also serves Gilchrist and Hamilton Counties.

d. Also serves Charlotte and Hardee Counties.

e. Also serves Santa Rosa County

f. Also serves Gulf and Wakulla Counties

g. Also serves Glades and Hendry Counties

h. Also serves Washington County.

TABLE LVI (Continued)
DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS AND TRAINING CENTER, DECEMBER 31, 1947

DISTRIBUTION OF PERSONNEL IN COUNTY HEALTH DEPARTMENTS AND HARBOR DISTRICTS																																	
	Lake	Leon	Levy	Liberty	Madison	Manatee	Marion	Monroe	Nassau	Okaloosa	Okeechobee	Orange	Osceola	Pasco	Pinellas	Polk	Putnam	Santa Rosa	Sarasota	Seminole	Saint Lucie	Sumter	Suwannee	Taylor	Union	Volusia	Wakulla	Walton	Washington	Training Center	Total		
Physicians	1	1	1	1	(i)	1	1	1	(i)	1	1	1	1	1	1	1	(i)		(m)	1	1	(n)	(o)				1	2	2	2	2	2	40
	4	5	1	1	2	4	2	3	2	2	1	13	2	1	13	8	2	2	4	3	2	1	2	2	2	1	10	2	2	2	1	241	
																																3	
																																	1
Nurses																																	4
																																	143
																																	2
																																	1
Dentists																																	1
																																	2
																																	1
																																	1
Sanitation Personnel:																																	4
																																	2
																																	1
																																	1
Graduate Engineers																																	2
																																	1
																																	1
																																	1
Others																																	2
																																	1
																																	1
																																	1
Laboratory Personnel (Technical)																																	2
																																	1
																																	1
																																	1
Health Educators																																	1
																																	1
																																	1
																																	1
Nutritionists																																	1
																																	1
																																	1
																																	1
Medical Social Workers																																	1
																																	1
																																	1
																																	1
Clerical-Administrative-Fiscal																																	1
																																	1
																																	1
																																	1
Part Time																																	1
																																	1
																																	1
																																	1
Exempt																																	1
																																	1
																																	1
																																	1
Others																																	1
																																	1
																																	1
																																	1
TOTAL	12	18	5	1	7	9	10	13	7	6	2	23	4	2	22	30	7	6	10	8	4	5	7	6	2	29	3	6	5	9	709		

Also cover Davis and Fayette Counties.

i. Also serves Taylor County

j. Also serves Baker County

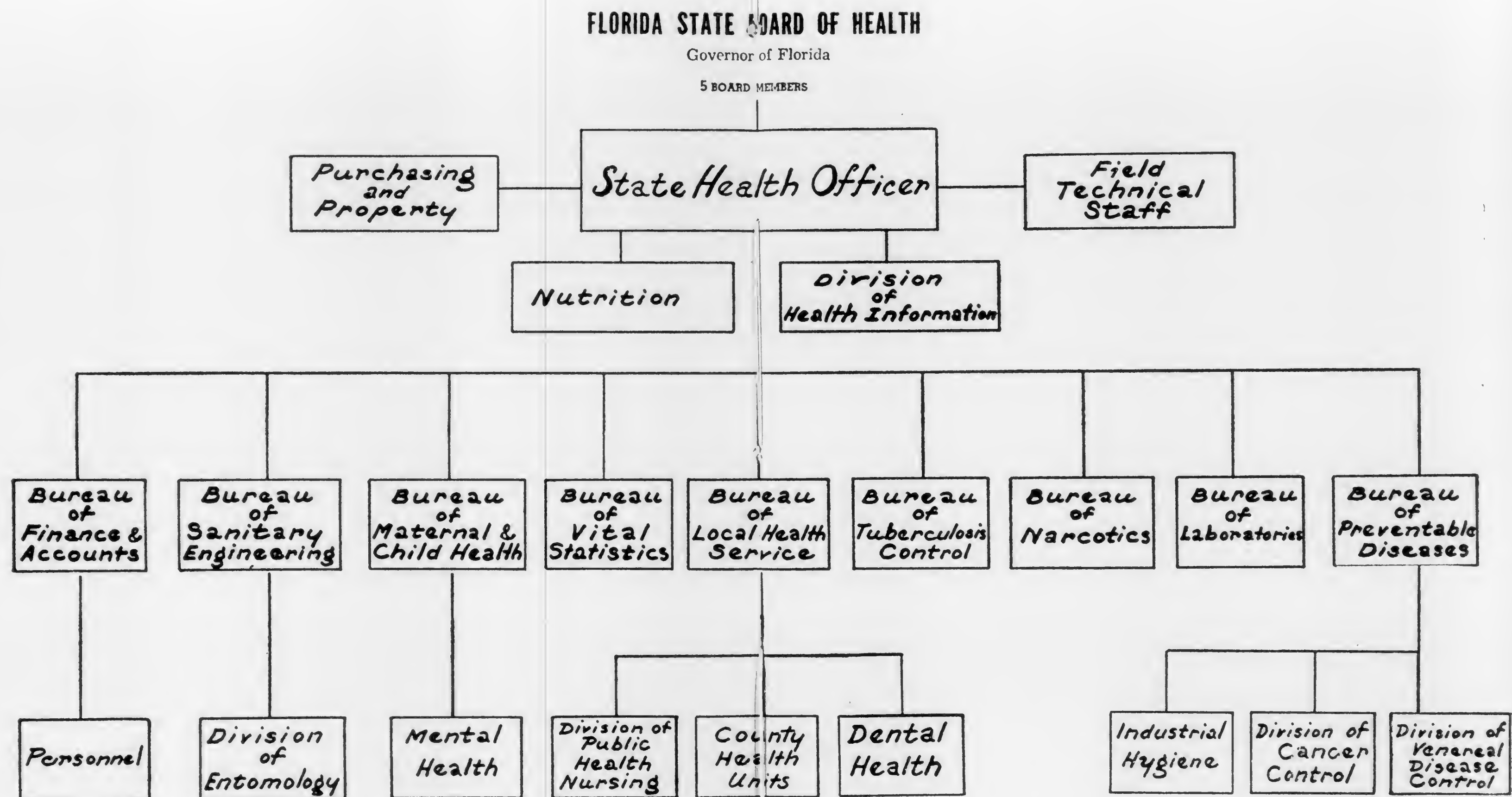
k. Also serves Holmes and Walton Counties

l. Also serves Flagler County

m. Also serves Manatee County

n. Also serves Pasco County

o. Also serves Dixie and Lafayette Counties.



PURCHASING AND PROPERTY

G. WILSON BALTZELL, Purchasing Agent

The Central Purchasing Department has been in operation since March 1, 1946. The report for the first year, 1946, only comprised a period of ten months, at which time 2,234 purchase orders were issued, representing a money value of \$345,921.54. For the calendar year 1947, 3,500 purchase orders were issued totaling \$424,353.36. A comparison of the bids received on purchases shows the difference between high and low bids to be \$68,719.96. This difference is 16% of the amount of total purchases. Figure No. 14 shows the difference between high and low bids cumulative by months for the year 1947.

During the year 1946 the worst trouble was being unable to secure merchandise, and this condition continued on through 1947. Again, the year 1947 was notable for spectacular price advances, especially when vendors were unable to make prompt deliveries, which was usually the case. By the time they could make deliveries, prices had advanced and we were then faced with the problem of either cancelling orders and starting all over inviting bids, etc., or accepting conditions as they were and paying prevailing prices. The latter course was usually followed in order to secure the much needed merchandise instead of being without for another extended period. From all indications, there is little improvement to be expected here for some time to come.

The State Board of Health was able to secure a few new automobiles in 1947, although not enough to enable replacements of all old vehicles with more mileage on them than feasible for operating on the highways. Repair bills were high and will continue so until more new cars are available. It was a good year as far as automobile accidents were concerned, the number of claims being very small.

BUILDING AND GROUNDS

During the year two buildings at the St. John's River Ship-building site were leased to house the Bureau of Sanitary Engineering and the Division of Entomology. Other rented offices on West Ashley Street have been given up, and the Central Venereal Registry was moved to headquarters to occupy the offices vacated by the Bureau of Sanitary Engineering.

Continuous effort is made by the maintenance crew to keep the buildings and grounds in good condition. Many offices were entirely repainted during the past year.

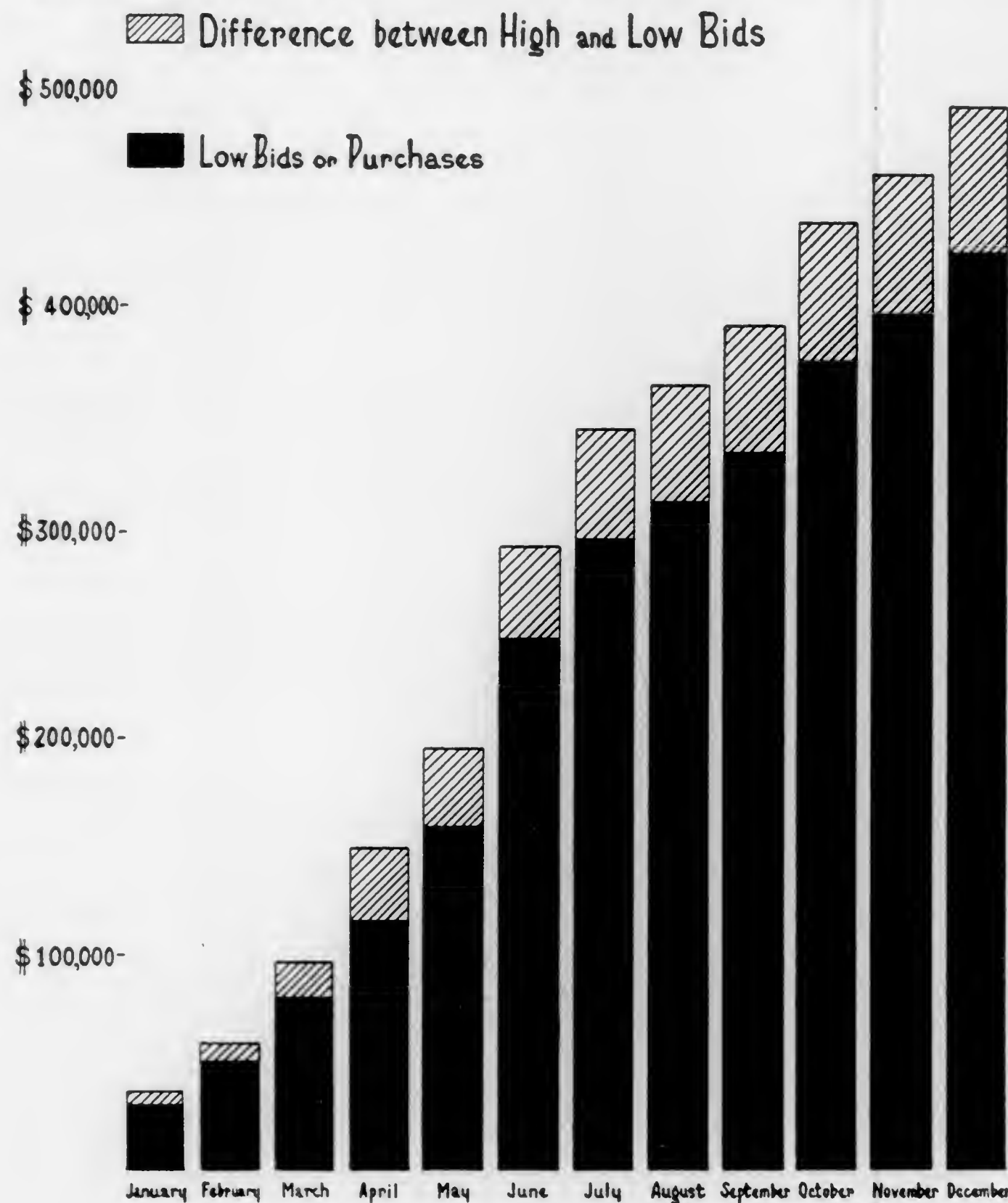
DUPLICATING

The Duplicating Department continues to operate at high speed. Although more machinery has been bought, the personnel still consists of the chief, one assistant and an operator for the addressograph machine. The addressograph machine is used to address Health Notes each month and send out other mailing matter. The machine is also used in the preparation of monthly pay rolls.

Plans are on foot to install a much larger multilith machine than the present one, which will increase the volume and scope of the work now performed.

FIGURE 14

Chart showing the difference between high and low bids on purchases made by the Florida State Board of Health, cumulative by months for 1947.



HOSPITAL LICENSING

In 1947, the Florida State Legislature passed an Act to require the licensing, inspection and regulation of hospitals; creating a Hospital Advisory Council and describing its powers; providing for regulations, enforcement proceedings, penalties and appropriations. This Act is Chapter 24091, General Laws of the State of Florida. Section 13 of the Act requires an annual report of the licensing agency. The State Board of Health is designated as the licensing agency, and the State Health Officer, Wilson T. Sowder, M.D., is designated as the Chairman-ex-officio of the Florida Advisory Hospital Council.

In addition to the State Health Officer, the following have been appointed by the Governor as members of this Council:

L. B. Anderson
Winter Haven, Florida
W. E. Arnold
Jacksonville, Florida
Oscar Gilbert
St. Petersburg, Florida
W. C. Payne, M.D.
Pensacola, Florida
T. R. Smith
Quincy, Florida
Harrison A. Walker, M.D.
Miami, Florida

The Hospital Licensing Act, which became effective July 1, 1947, applies only to those hospitals receiving Federal aid or aid from the U. S. Government. During the year 1947, there were no hospitals in the State of Florida to which this Hospital Licensing Act would apply. Therefore, the licensing agency was not called upon to entertain any application for licensing.

Some progress was made by the licensing agency in compiling rules, regulations and standards with respect to hospitals, and it is expected that such rules, regulations and standards will be completed and adopted early in 1948.